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GENETIC STUDIES OF GENIUS

EDITED BY

LEWIS M. TERMAN

VOLUME II

THE EARLY MENTAL TRAITS OF THREE HUNDRED GENIUSES

GENETIC STUDIES OF GENIUS

Edited by LEWIS M. TERMAN

Volume I. MENTAL AND PHYSICAL TRAITS OF A THOUSAND GIFTED CHILDREN

By LEWIS M. TERMAN *and Others*

Volume II. THE EARLY MENTAL TRAITS OF THREE HUNDRED GENIUSES

By CATHARINE M. COX

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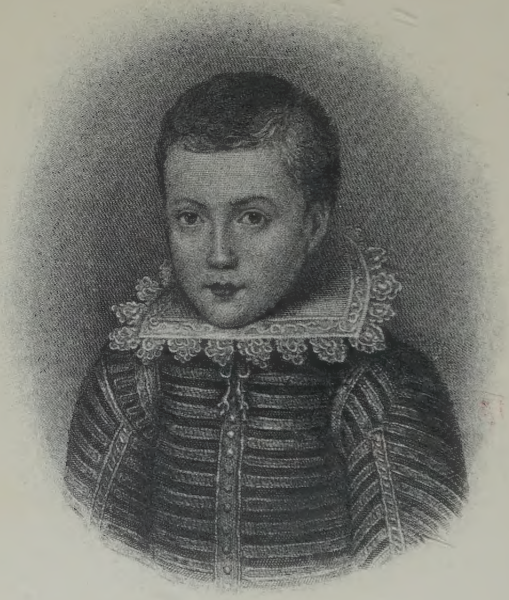

JOHN MILTON

AT THE AGE OF TEN

From David Masson, *Life of Milton*, Macmillan & Company, Ltd., London.
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GENETIC STUDIES OF GENIUS

VOLUME II

THE EARLY MENTAL TRAITS OF THREE HUNDRED GENIUSES

CATHERINE MORRIS COX

Assisted by

LELA O. GILLAN
RUTH HAINES LIVESAY
LEWIS M. TERMAN

DISCARD

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EDITOR'S PREFACE

It is with no inconsiderable degree of satisfaction that the editor presents Volume II of *Genetic Studies of Genius.* For several years he had looked forward to the time when it might be possible for him either to make such a study himself, or, failing that opportunity, to find a research associate of sufficient competence and maturity to carry the study through with a minimum of general direction and assistance.

A life-long interest in the psychological aspects of biography, particularly in the precocious indications of superior mental ability, had convinced him not only of the essential falsity of certain traditional opinions regarding the childhood of genius, but also of the utter inability of a majority of otherwise competent biographical writers to appraise and interpret the facts which they themselves have recorded with reference to the early mental development of their subjects. The correct interpretation of such data is indeed possible only to those who have acquired a rich and detailed acquaintance with the age norms of childhood performance, a qualification which probably no author of an important biography has ever possessed.

No better illustration of the truth of the foregoing statement could be desired than is offered by Karl Pearson's splendid biography of Francis Galton. In Volume I of that work the author presents detailed evidence, much of it of documentary nature, which any psychologist who is familiar with the age norms of mental development will recognize as convincing proof that Galton as a child had an intelligence quotient not far from 200; in other words, that his "mental age" was about twice his actual age. Although it is a fact well known to psychologists that not one child in ten thousand taken at random shows this degree of intellectual superiority, Pearson gives only a passing comment to the data presented and tells us that Galton's childhood gave no significant indications of his future genius. Such misinterpretation, even of the grossest kind, is inevitable and therefore excusable on the part of biographers who are unacquainted with recent psychological discoveries in the field

of mental development and individual differences. This aspect of biographical authorship is probably only one of many to which psychologists of the future are certain to make important contributions.

When at last the necessary funds had been provided for a study of the kind described in this volume it was most fortunate that a competent investigator was at hand who could be entrusted with the entire responsibility of carrying it through. By psychological training, scientific aptitude, natural interests, and command of foreign languages, Dr. Catharine Cox was ideally fitted for the undertaking. No words of praise for what she has accomplished are here necessary. The editor wishes only to make record of his belief that this volume will be widely recognized as an original and outstanding contribution to the psychology of genius.

The interests of the editor center largely in the question whether, or to what extent and how, genius is evidenced in childhood, since it is obvious that the answer to this question must be forthcoming before we can rationally set about the formulation of methods for the training of gifted children. By psychological methods already available it is possible to identify intellectually precocious children with certainty and to measure with fair accuracy many of their mental, moral, and personality traits. What we have not known is whether the characteristics thus discoverable in such children are ordinarily paralleled in the childhood traits of individuals who have later achieved eminence by virtue of their intellectual or moral or artistic performances. The present investigation is largely an attempt to find the answer to this question.

It is perhaps well to call attention to three or four features of the investigation in order to make clear the nature of the methods employed and to prevent misunderstandings.

In the first place, it was necessary to make an unbiased selection of cases for study, for the work of Lombroso long ago taught us that by sufficiently biased selection it is possible to "prove" almost any theory regarding genius, however bizarre. By basing her selection upon Cattell's objectively determined list of the thousand most eminent individuals of history, and by the adoption of certain rules in the reduction of this list, the author has avoided the common errors arising

from this source. Accordingly, since her sampling is adequately large for her purpose, if her conclusions hold for the three hundred cases she has studied, they can be accepted as holding generally for individuals of this degree of eminence.

The second task was to search the biographies of each of the subjects for evidence bearing on the superiority or inferiority of mental performances as judged by comparison with the performances of average children of corresponding age. It is evident that the value of the research hinges largely on the thoroughness and care with which this phase of the investigation was carried out. It was necessary for those who assembled the data to be able to recognize pertinent information and to select the most significant items when selection was necessary. Because of the uneven value of biographies from the point of view of dependability, considerable historical knowledge and judgment were also necessary. Considering the unusual combination of qualifications demanded, the editor believes that it would be very difficult indeed to find three persons who, in the time that was available, could have carried through this portion of the task more satisfactorily than it was performed by Dr. Cox, Miss Gillan, and Mrs. Livesay. The limitation of time should be emphasized. But for this, one might in some cases profitably have spent years in historical research on the early development of a single subject (Goethe, for example). It was necessary, instead, to confine this part of the work to a careful examination of the leading biographies available in English, French, and German. And for this reason it is probable that the data it was possible to assemble were often less complete than they might have been. The chief inadequacy of the data, however, is accounted for by the failure of biographers to record with any reasonable degree of completeness the kinds of information demanded for a research of the type here undertaken. There is crying need for a series of studies which would ultimately provide us with the important psychological canons of biography.

The data assembled as a result of the biographical search amounted to some six thousand pages of typed material, or an average of about twenty pages for each subject. Even so, considerable selection was necessary. The rule fol-

lowed was to copy, or to paraphrase, as nearly as possible every statement of fact and all quoted documents (letters, poems, et cetera) that could be interpreted as throwing light on the subject's mental superiority or inferiority as compared with that of average children. The interpretation of such data was reserved for the next stage of the research.

When the original case material just described had been brought together, the next task was to estimate in each case the intelligence quotient that would correspond to the recorded facts. It should be emphasized that the task set was not to estimate what the childhood IQ of a given subject probably was, *but the IQ that would most reasonably account for the recorded facts.* The accuracy of such an estimate depends of course both upon the reliability of judgment in those who furnish the estimates and upon the adequacy of the recorded data. The three persons who rated all the subjects, Dr. Cox, Dr. Merrill, and the writer, were at least possessed of whatever fitness for the task an intimate knowledge of mental-test standards provides. This, together with freedom from individual bias, is probably the most important qualification. The IQ estimates furnished by the three raters show a degree of agreement that should free them from the suspicion of being greatly influenced by personal bias. The additional ratings furnished on the adequacy of the evidence in each case allow a quantitative statement of the confidence that may be placed in any individual IQ estimate.

The brief biographical summaries in Part II give some indication of the nature of the evidence on which the IQ estimates were based, although a very inadequate one. It should be emphasized that for most of the subjects it was possible to include in these summaries not more than one-tenth of the material originally assembled in the case studies. There is a consequent loss of concreteness and wealth of detail which may often leave the reader in doubt as to the correctness of the IQ estimates, especially the reader who is not intimately acquainted with mental age standards of performance.

As to the essential validity of the more important conclusions which the author has drawn from her data, the editor has not the slightest doubt. We are justified in believ-

ing that geniuses, so called, are not only characterized in childhood by a superior IQ, but also by traits of interest, energy, will, and character that foreshadow later performance. The ancient saying that "the child is father to the man" probably expresses a truth far more profound than anyone has hitherto suspected. However, this must not be taken to mean that every child *inevitably* becomes the man he does become. If such were the case, education would be powerless to help or hinder. It does mean that the traits which make for prodigious performance in manhood are probably in evidence as budding capacities in the child. Whether, on the other hand, these capacities which we find in the gifted children about us are destined to flower and fruit will probably depend upon a host of circumstances, many of which, let us hope, are under the control of school and home and other institutions of society.

In the time that has been available it has not been possible to exhaust the rich mine of material contained in the three hundred complete case studies. It is hoped that all of the data may in the near future be sifted more carefully for information on mental inheritance, early evidence of adult interests, the degree of specialization of ability, parental and other environmental influences, juvenile writings, and physical illnesses.

The editor not only believes that the present contribution by Dr. Cox will be welcomed for its intrinsic merit, but that it will also serve as a timely stimulus to other applications of psychological concepts and methods to the problems of biographical research.

LEWIS M. TERMAN

AUTHOR'S PREFACE

The investigation reported in this volume was projected in 1921. In that year Professor Lewis M. Terman made application to the Commonwealth Fund of New York City for a grant which would help to make possible a biographical investigation of the childhood intelligence of great geniuses of the past. The investigation was planned as a parallel study to the research on gifted school children in California.[1] The grant was made and was later extensively supplemented by a grant from the Thomas Welton Stanford Fund.

The writer was appointed to carry out the investigation under the direction of Professor Terman. In the primary task of searching biographical works for pertinent data she was given the assistance of two able research workers: Lela O. Gillan (October, 1922, to February, 1923) and Ruth Haines Livesay (April, 1923, to November, 1923). Other workers under the grant rendered technical assistance in the preparation of the data and the manuscript. The writer devoted to the study the major part of her time from 1922 to 1924. This stage of the work included the selection of cases, the compilation of a bibliography, the assembling of case material, the detailed treatment of the case studies and of data derived from them (including statistical treatment), and finally the preparation of a preliminary report of the study as a whole. From 1924 to 1926 revision of the preliminary report and preparation of the present volume absorbed practically all of her time not devoted to regular professional duties.

A preliminary statement of the findings here presented and discussed in greater detail appeared in a thesis on *The Early Mental Development of a Group of Eminent Men,* which was filed by the writer in the Stanford University Library in October, 1924. The material of this earlier work has been revised and largely rewritten for the present

[1] The study of the gifted young Californians has been reported by Terman *et al., Mental and Physical Traits of a Thousand Gifted Children.* Stanford University Press, 1925, Vol. I, *Genetic Studies of Genius.*

volume.[1] The contents of Part II have been increased from 100 brief case studies to 301, thus including in summarized form the most important facts of the original case material. An appendix has been added containing extracts from the early writings of the 301 subjects selected and arranged for this purpose by Professor Terman from the complete case studies.

For making the present investigation possible, acknowledgment is due first of all to the Commonwealth Fund, to the Thomas Welton Stanford Fund,[2] and to Professor Terman, the initiator of the undertaking. The latter is responsible for suggesting the novel method adopted in this work of evaluating intelligence through biographical material.[3] As director of the investigation, and as editor of the series of *Genetic Studies of Genius*, Professor Terman gave time and thought throughout the progress of the work and co-operated in the consideration of questions concerning both manner and matter. In the earlier course of the study he followed each step in detail. Latterly he has twice read the entire work critically.

Lela O. Gillan and Ruth Haines Livesay, by their keen and careful research in the compilation of 195 of the 301 case studies, contributed an enormous share to the study as a whole, for the case studies provided the material for the entire investigation.

To the many other persons who contributed directly or indirectly to the prosecution of the task sincere thanks are offered. These co-laborers are too numerous for separate acknowledgment to be made to all.

The psychologists who gave many hours to the rating of the intelligence of the subjects of the study have contributed a unique share to our knowledge of geniuses in childhood. The writer is especially indebted for this assistance to Professor Terman, Dr. Kate Gordon, Dr. Maud A. Merrill, Dr. Florence Goodenough, and Miss Lulu M. Stedman. Dr. Truman L. Kelley gave invaluable suggestions in the statistical

[1] The discussion in Chapters I and II of the present volume reproduces the historical treatment of the earlier study without essential change.

[2] A grant from the Thomas Welton Stanford Fund in large part financed the technical preparation of the manuscript for publication.

[3] See Terman, Lewis M. "The Intelligence Quotient of Francis Galton in Childhood," *American Journal of Psychology*, Vol. 28, 1917, pp. 209–215.

interpretation and treatment, as did also Dr. J. Benson Wyman, who assisted the writer in the actual statistical computations. Miss Mary Meyrick, Mrs. Jessica Washburn, and Mrs. Livesay assisted in the rating of character traits. Misses Mary Morgan Smith, Mary Meyrick, Barbara Burks, and Messrs. John McClelland and L. M. Williams, using the original case material assembled by Miss Gillan, Mrs. Livesay, and the writer, outlined a number of the drafts for the abbreviated case studies in Part II. For helpful suggestions and general criticism either of the plan of study or of the manuscript, acknowledgment is made especially to Dr. Anna Cox Brinton, Dr. Howard H. Brinton, Dr. William Alpha Cooper, Dr. Hertha Kraus, Mr. Leo Lilly, Mrs. Marian Russell Logan, Dr. Maud A. Merrill, Dr. Karl G. Rendtorff, and Dr. Ellen B. Sullivan.

Mr. G. T. Clark, Director of Stanford University Libraries, co-operated most kindly and effectively in securing volumes needed for the study. Thanks are accorded to him and to the members of his staff.

For invaluable technical assistance acknowledgment is due to a host of efficient workers, among whom Miss Katherine Murray, Miss Grace Murray, Miss Miranda Goodrie, Miss Natalie Raymond, and Mr. McClelland were longest engaged in the work.

The graphic presentation of the data in the figures appearing in Part I is the work of Mr. Philip Corriston Clark.

Throughout the investigation careful effort has been made to avoid errors and inaccuracy. No one can be more conscious than the writer of the difficulty of this attempt; no one can more sincerely regret the extent to which it has not been successful. It is believed, however, in spite of all the sources of error, that the essential truth of the matter has not been distorted.

CATHARINE MORRIS COX

CINCINNATI, OHIO
October, 1926

CONTENTS

PART I. METHODS AND RESULTS

CHAPTER — PAGE

I. INTRODUCTION 3

II. EARLIER STUDIES AND A NEW METHOD 11
Studies of great men and theories of greatness, 11. Historical methods of approach, 16. Eminence as the criterion of genius, 17. Psychometry and historiometry, 21. Fundamental propositions, 22. Psychometric or historiometric studies, 28.

III. SUBJECTS AND DATA 31
Group A (282 Cases), 32. Group B (19 Cases), 37. Group C (100 Cases), 38. Sources of data, 38. The character of the data, 40. Summary, 45.

IV. THE IQ ESTIMATE 47
Distribution of the ratings in Group A, 49. The relation of the IQ estimate and the rank order of eminence, 55. Nationality and the IQ, 57. The relation of the IQ to the field or profession in which eminence was achieved, 59.

V. TREATMENT OF THE IQ 63
The trial rating, 64. Rating of Group A, 66. The reliability of the raters, 69. The final IQ ratings AI and AII, 70. The probable correctness of the difference between means (Group A), 72. Rating the reliability of the data, 73. The dependence of the IQ rating on the reliability of the data, 79. Conclusions as to constant error in the ratings, 79. A corrected IQ estimate, 81.

VI. DISCUSSION AND ANALYSIS OF THE IQ RATINGS . . . 87
AI IQ 100, 88. AII IQ 100, 89. AI IQ 105, 90. AII IQ 105, 92. AI IQ 110, 92. AII IQ 110, 95. AI IQ 115, 95. AII IQ 115, 99.

VII. DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued* 101
AI IQ 120, 101. AII IQ 120, 104. AI IQ 125, 104. AII IQ 125, 108. AI IQ 130, 109. AII IQ 130, 111. AI IQ 135, 112. AII IQ 135, 115.

VIII. DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued* 117
AI IQ 140, 117. AII IQ 140, 121. AI IQ 145, 121. AII IQ 145, 125. AI IQ 150, 126. AII IQ 150, 130. AI IQ 155, 131. AII IQ 155, 133.

IX. DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued* 135
AI IQ 160, 135. AII IQ 160, 139. AI IQ 165, 139. AII IQ 165, 142. AI IQ 170, 142. AII IQ 170, 144. AI IQ 175, 145. AII IQ 175, 146.

CHAPTER PAGE

X. DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Concluded* 149
AI IQ 180, 149. AII IQ 180, 152. AI IQ 185, 153. AII IQ 185, 155. AI IQ 190, 155. AII IQ 190, 160. AI IQ 195, 162. AII IQ 195, 162. AI IQ 200, 162. AII IQ 200, 162.

XI. CHARACTER RATINGS 165
Environmental factors, 165. Interests, 167. Rating of character traits, 169.

XII. ANALYSIS OF CHARACTER RATINGS 177
The trait profile of 100 youthful geniuses (Group C), 177. Characterization and comparison of 15 subgroups of youthful geniuses, 180.

XIII. CONCLUSIONS 215

PART II. CASE STUDIES

XIV. CASES RATED AT AI IQ 100 TO 110 223
Introductory note, 223. Jean de la Fontaine, 224. André Masséna, Duc de Rivoli and Prince d'Essling, 225. Sebastian le Prestre de Vauban, 225. John Bunyan, 226. Miguel de Cervantes, 227. James Cook, 228. William Cobbett, 229. Nicholas Copernicus, 230. Sir Francis Drake, 231. Michael Faraday, 232. Mehemet Ali, 233. Nicolas Poussin, 234. Laurent Gouvion, Marquess de St. Cyr, 235.

XV. CASES RATED AT AI IQ 110 TO 120 237
Guilio Alberoni, 237. Gebhard Leberecht von Blücher, 238. Robert Lord Clive, 239. Oliver Cromwell, 240. George Fox, 241. Christopher Willibald Gluck, 242. Ulysses Simpson Grant, 243. William Hogarth, 244. John Hunter, 245. Andrew Jackson, 247. Cornelis Jansen (Cornelius Jansenius), 248. George Monk, 249. Bartolomé Esteban Murillo, 250. Jean Victor Marie Moreau, 251. Michel Ney, Duc d'Elchingen and Prince de la Moskwa, 251. Giovanni Pierluigi da Palestrina, 252. Raphael Sanzio, 253. Rembrandt Hermanzoon van Rijn (or Ryn), 255. Albrecht Eusebius von Wallenstein (or Waldstein or Waldenstein), 257. Pierre Jean de Béranger, 258. Jean Baptiste (Jules) Bernadotte (Charles XIV, King of Sweden), 261. Hernando Cortez, 262. Oliver Goldsmith, 263. Michel de L'Hôpital, 264. Martin Luther, 265. Joachim Murat, 267. Jacques Necker, 268. Nicolas Jean de Dieu Soult, 268. Emanuel Swedenborg, 269. William Warburton, 270.

XVI. CASES RATED AT AI IQ 120 TO 130 273
John Adams, 273. Ali Weli Zade (known as Ali Pasha "The Lion"), 274. Francis Atterbury, 275. John Jacob Berzelius, 276. Richard Cobden, 278. Thomas Cranmer, 279. Daniel DeFoe, 280. André Marie Jean Jacques Dupin, 281. David Glasgow Farragut, 282. Henry Fielding, 284. Giuseppe Garibaldi, 285. Francesco Guicciardini, 287. William Harvey, 287. Franz Joseph Haydn, 288. Ben Jonson, 291. Antoine Laurent Lavoisier, 292. James Madi-

CHAPTER PAGE

son, 293. Françoise D'Aubigné de Maintenon, 294. John Churchill, First Duke of Marlborough, 296. Johann Reuchlin, 297. Armand Jean du Plessis, Cardinal and Duc de Richelieu, 298. Gioachino Antonio Rossini, 298. Joseph Justus Scaliger, 301. Louis Adolphe Thiers, 302. Sir Anthony Van Dyck, 303. William Wilberforce, 304. John Wilkes, 305. Joseph Addison, 306. Ludovico Ariosto, 307. Johann Sebastian Bach, 309. Theodore Beza, 310. Robert Blake, 311. Simon Bolivar, 312. John Bright, 313. George Louis Leclerc, Comte de Buffon, 315. Philip Dormer Stanhope, 4th Earl of Chesterfield, 316. John Dryden, 317. Albrecht Dürer, 318. Joseph Fouché, Duc d'Otrante, 319. Joseph Louis Gay-Lussac, 320. Claude Adrien Helvetius, 321. Edward Jenner, 322. Justus Liebig, 323. Abraham Lincoln, 325. Carolus Linnaeus, 327. John Locke, 328. Nicholas Malebranche, 329. Auguste F. L. V. de Marmont, 331. John Napier, 332. Horatio Nelson, 333. Joshua Reynolds, 334. Madame de Sévigné (Marie de Rabutin-Chantal), 336. Anthony Ashley Cooper, Earl of Shaftesbury, 337. William Tecumseh Sherman, 339. Jonathan Swift, 339. Jacques-Auguste de Thou, 341. Diego Rodriguez de Silva y Velasquez, 342. Sir Robert Walpole, Earl of Orford, 344. George Washington, 345.

XVII. CASES RATED AT AI IQ 130 TO 140 347

Honoré de Balzac, 347. Robert Burns, 348. Antonio Canova, 351. Pierre Corneille, 353. Heinrich Heine, 354. Johann Gottfried Herder, 356. Christian Huygens, 358. Washington Irving, 359. Jean Paul Marat, 361. Jules Mazarin, 362. Jean-Baptiste Poquelin (Molière), 363. Sir Isaac Newton, 364. William Hickling Prescott, 366. Sir Walter Raleigh, 368. Jean Jacques Rosseau, 369. Claude Henry de Rouvroy, Comte de Saint-Simon, 372. Girolamo Savonarola, 373. Richard Brinsley Butler Sheridan, 375. Benedict de Spinoza, 376. Sir William Temple, 377. Pierre-Victurnien Vergniaud, 378. Count Vittorio Alfieri, 379. Lancelot Andrewes, 382. Antoine Arnauld (surnamed "The Great Arnauld"), 383. Richard Baxter, 384. Pierre Bayle, 385. Ludwig van Beethoven, 386. Edmund Burke, 388. John Calvin, 391. Jerome Cardan, 392. Samuel Clarke, 394. Victor Cousin, 395. William Cowper, 396. Charles Robert Darwin, 398. Desiderius Erasmus (Gerhard Gerhardsohn), 400. Charles Guillaume Étienne, 401. Sir John Franklin, 403. Jacob Ludwig Karl Grimm, 404. George Grote, 406. François Pierre Guillaume Guizot, 407. Alexander Hamilton, 409. Warren Hastings, 410. Immanuel Kant, 411. Friedrich Gottlieb Klopstock, 413. Joseph Louis Lagrange, 415. Alphonse Marie Louis Lamartine, 416. Gotthold Ephraim Lessing, 418. Giuseppe (Joseph) Mazzini, 421. Baron de Montesquieu (Charles de Secondat), 422. Sir Thomas More, 423. Napoleon Bonaparte, 425. William Penn, 428. Jean Baptiste Racine, 430. William Robertson, 431. Maximilien Marie Isidore Robespièrre, 432. Adam Smith, 434. Edmund Spenser, 436. William Makepeace Thackeray, 437. Leonardo da Vinci, 438. Wilhelm Richard Wagner, 440. Karl Maria von Weber, 443. John Wesley, 446.

CHAPTER PAGE

XVIII. CASES RATED AT AI IQ 140 TO 150 449

Louis Agassiz, 449. Pierre Augustin Caron de Beaumarchais, 451. Richard Bentley, 452. Marie François Xavier Bichat, 454. Hermann Boerhaave, 455. Robert Boyle, 456. Edward G. Bulwer-Lytton, Lord Lytton, 458. Pedro Calderón de la Barca, 461. Augustin Pyramus de Candolle, 462. Thomas Carlyle, 464. Alexandre Dumas (pére), 467. William Hamilton, 470. Thomas Hobbes, 471. Alexander von Humboldt, 472. Johann Kepler, 475. John Law of Lauriston, 477. Michel Eyquem de Montaigne, 478. Tom Moore, 480. William Pitt, First Earl of Chatham, 482. Joseph Priestley, 484. Peter Paul Rubens, 485. Friedrich Schiller, 487. William Henry Seward, 489. David Friedrich Strauss, 491. Anne Robert Jacques Turgot, 492. Lope Felix de Vega Carpio, 494. James Watt, 495. Ulrich Zwingli, 498. Dominique François Arago, 499. Francis Bacon, 501. Jean Sylvain Bailly, 502. Gilbert Burnet, 504. Tommaso Campanella, 505. Thomas Chalmers, 506. William Ellery Channing, 508. Georges Jacques Danton, 511. Charles Dickens, 513. Benjamin Disraeli, 515. Ralph Waldo Emerson, 517. François de Salignac de la Mothe Fénelon, 519. Johann Gottlieb Fichte, 520. Charles James Fox, 522. Benjamin Franklin, 524. Galileo Galilei, 526. Edward Gibbon, 528. Sir William Herschel, 530. George Frederick Handel, 532. Friedrich Wilhelm von Humboldt, 534. Thomas Jefferson, 536. August Friedrich Ferdinand von Kotzebue, 537. Pierre Simon Laplace, 541. Metastasio (Pietro Antonio Domenica Bonaventura Trapassi), 542. Michelangelo Buonarroti, 543. John Milton, 545. Daniel O'Connell, 547. Charles Augustin Sainte-Beuve, 549. Daniel Webster, 551. Johann Joachim Winckelmann, 554.

XIX. CASES RATED AT AI IQ 150 TO 160 557

George Berkeley, 557. Christian Carl Jonas Bunsen, 558. George Gordon, Lord Byron, 560. George Canning, 563. Lazare Nicolas Marguerite Carnot, 565. Camillo Benso, Count di Cavour, 567. François-René de Chateubriand, 569. Auguste Comte, 571. Jean le Rond d'Alembert, 573. Humphry Davy, 574. René Descartes, 577. Denis Diderot, 578. Pierre Gassendi, 579. Georg Wilhelm Friedrich Hegel, 580. Victor Hugo, 582. Félicité Robert de Lamennais, 585. Henry Wadsworth Longfellow, 587. Jakob Ludwig Felix Mendelssohn-Bartholdy, 589. Wolfgang Amadeus Mozart, 592. Ernest Renan, 595. George Sand (Aurore Dupin), 596. Friedrich Ernst Daniel Schleiermacher, 599. Walter Scott, 602. William Wordsworth, 605. Marie Jean Antoine Nicolas Caritat, Marquis de Condorcet, 607. Georges Leopold Chrétien Frédéric Dogebert Cuvier, 608. David Hume, 612. Samuel Johnson, 613. Sir Robert Peel, 616. Madame de Staël-Holstein (Anne Louise Germaine Necker), 618. Alfred Tennyson, 621. Ludwig Tieck, 623. Friedrich August Wolf, 626.

XX. CASES RATED AT AI IQ 160 TO 170 631

Jacques Bénigne Bossuet, 631. Henry Peter Brougham, 632. Philipp Melanchthon, 635. Louis Alfred Charles de

CHAPTER PAGE

Musset, 638. William Pitt, 640. Alexander Pope, 643. Torquato Tasso, 645. Christoph Martin Wieland, 647. John Quincy Adams, 649. Henri Benjamin Constant de Rebecque, 651. Gabriel Honoré de Riquetti, Comte de Mirabeau, 654. Barthold Georg Niebuhr, 656. Fra Paolo (Pietro) Sarpi, 660. Thomas Wolsey, 662.

XXI. CASES RATED AT AI IQ 170 TO 180 663

Thomas Chatterton, 663. Giacomo Leopardi, 665. François Marie Arouet (Voltaire), 669. Samuel Taylor Coleridge, 672. Albrecht von Haller, 675. Friedrich Schelling, 678.

XXII. CASES RATED AT AI IQ 180 TO 190 683

Jeremy Bentham, 683. Thomas Babington Macaulay, 687. Blaise Pascal, 690. Johann Wolfgang Goethe, 693. Hugo Grotius, 699. Gottfried Wilhelm Leibnitz, 702.

XXIII. CASE RATED AT AI IQ 190 TO 200 707

John Stuart Mill, 707.

XXIV. CASE STUDIES OF GROUP B 711

Robert Fulton, 711. Mrs. Gaskell (Elizabeth Cleghorn Stevenson), 712. Philip H. Sheridan, 713. Hans Christian Andersen, 714. William Lloyd Garrison, 716. George William Frederick Villiers, Fourth Earl of Clarendon, 718. Ludwig Holberg, 719. Robert E. Lee, 720. David Livingstone, 721. Hugh Miller, 722. Léon Gambetta, 724. Nathaniel Hawthorne, 726. Harriet Martineau, 728. Hans Christian Oersted, 729. Charles Sumner, 731. George Eliot (Mary Ann Evans), 732. Charlotte Brontë, 734. John Henry Newman, 736. Robert Southey, 738.

APPENDIXES

APPENDIX PAGE

I. A CASE STUDY IN FULL 745

Schelling, Friedrich Wilhelm Joseph, 745: Bibliography, 745; Chronology, 745; Ancestry and family, 747; Development to 25, 747; Characterization, 759; Basis for Schelling's eminence, 759.

II. EXCERPTS FROM THE EARLY WRITINGS OF YOUNG GENIUSES 761

Jeremy Bentham, 761. Richard Bentley, 762. Pierre Jean de Béranger, 762. George Berkeley, 763. Théodore Beza, 763. Hermann Boerhaave, 763. Jacques B. Bossuet, 763. Robert Boyle, 764. John Bright, 764. Henry P. Brougham, 764. Edward G. Bulwer-Lytton, 765. Christian C. J. Bunsen, 766. Edmund Burke, 766. Robert Burns, 767. George Gordon, Lord Byron, 767. Pedro Calderón, 768. Tommaso Campanella, 768. George Canning, 768. Jerome Cardan, 769. Thomas Carlyle, 769. Camillo Benso di Cavour, 770. Thomas Chalmers, 770. William Ellery Channing, 771. F. R. A. de Chateaubriand, 771. Thomas Chatterton, 772. Samuel Taylor Coleridge, 772. Auguste Comte, 773. M.

PAGE

Caritat de Condorcet, 773. Benjamin H. Constant, 773. Pierre Corneille, 774. Hernando Cortez, 774. Victor Cousin, 774. William Cowper, 775. George L. Cuvier, 775. Georges J. Danton, 775. Humphry Davy, 776. René Descartes, 776. Charles Dickens, 777. Benjamin Disraeli, 777. John Dryden, 778. A. M. Dupin, 778. Ralph Waldo Emerson, 778. Desiderius Erasmus, 779. Charles G. Étienne, 779. Michael Faraday, 779. François Fénelon, 779. Johann G. Fichte, 780. Henry Fielding, 780. Charles James Fox, 780. Benjamin Franklin, 780. John Franklin, 781. Pierre Gassendi, 781. Edward Gibbon, 781. Johann Wolfgang Goethe, 782. Hugo Grotius, 783. François Guizot, 784. Albrecht Haller, 784. Alexander Hamilton, 785. William Hamilton, 785. G. W. F. Hegel, 785. Heinrich Heine, 786. J. G. Herder, 786. Thomas Hobbes, 786. Victor Hugo, 786. Alexander von Humboldt, 787. David Hume, 787. Christian Huygens, 788. Washington Irving, 788. Thomas Jefferson, 788. Samuel Johnson, 789. F. G. Klopstock, 789. August von Kotzebue, 790. Alphonse de Lamartine, 790. A. L. Lavoisier, 790. G. W. Leibnitz, 790. Giacomo Leopardi, 791. Gotthold E. Lessing, 791. Justus Liebig, 792. Abraham Lincoln, 792. Henry Wadsworth Longfellow, 792. Thomas B. Macaulay, 793. Madame de Maintenon, 794. Philipp Melanchthon, 794. Felix Mendelssohn, 794. Metastasio, 795. John Stuart Mill, 795. John Milton, 796. G. H. R. de Mirabeau, 796. Thomas Moore, 796. Sir Thomas More, 797. Wolfgang Amadeus Mozart, 797. Alfred de Musset, 798. Isaac Newton, 798. Berthold G. Niebuhr, 799. William Penn, 799. William Pitt, the Elder, 800. William Pitt, the Younger, 800. Alexander Pope, 801. W. H. Prescott, 801. Jean Racine, 802. Ernest Rénan, 802. C. A. Sainte-Beuve, 803. George Sand (Aurore Dupin), 803. Friedrich W. Schelling, 803. Friedrich Schiller, 804. Friedrich Schleiermacher, 804. Walter Scott, 804. Richard Sheridan, 805. Edmund Spenser, 805. Madame de Staël-Holstein, 806. Torquato Tasso, 806. Alfred Tennyson, 806. William Makepeace Thackeray, 807. Ludwig Tieck, 808. Friedrich August Wolf, 808. Lope de Vega, 808. Voltaire, 809. Richard Wagner, 809. George Washington, 810. Carl Maria von Weber, 810. Daniel Webster, 811. Christoph M. Wieland, 811. William Wordsworth, 811. Charlotte Brontë, 812. George Eliot (Mary Ann Evans), 812. William Lloyd Garrison, 813. Nathaniel Hawthorne, 813. Hugh Miller, 814. John Henry Newman, 814. Hans Christian Oersted, 815. Robert Southey, 815. Charles Sumner, 815.

INDEXES 819

Index of Geniuses, 819. General Index, 831.

LIST OF TABLES

Table		Page
1.	Distribution of 282 Eminent Men (Group A) by Half-Centuries	33
2.	Distribution of 282 Eminent Men (Group A) by Nationality	34
3.	Distribution of 282 Eminent Men (Group A) According to the Field in Which Eminence Was (Primarily) Achieved	35
4.	Distribution of 282 Eminent Men (Group A) by Length of Life and by (Primary) Field of Achievement	36
5.	Occupational Status of the Fathers and Maternal Grandfathers of 282 Eminent Men	37
6.	Distribution of Case Frequencies and Reliability Coefficients According to IQ Estimates (AI IQ and AII IQ)	50
7.	Distribution of Case Frequencies by AI IQ, and Comparison of the Average AII IQ with the Average AI IQ of the Same Cases	51
8.	Frequency Distribution of AI IQ Ratings According to the Reliability of the Data upon Which They Are Based	53
9.	Frequency Distribution of AII IQ Ratings According to the Reliability of the Data upon Which They Are Based	54
10.	Comparison of AI and AII Ratings and Reliability Coefficients of Certain Groups	56
11.	Distribution of 282 Eminent Men by Nationality, and the Average AI and AII Ratings by Nationality Groups	59
12A.	Individual IQ Ratings of Young Geniuses (Group A). *Insert facing*	60
12B.	Individual IQ Ratings of Young Geniuses (Group B). *Insert following Table* 12A *facing*	60
13.	Intercorrelation of Five Series of Trial Ratings on Group B, with Means and Standard Deviations of Each Series	66
14.	Intercorrelations of the IQ Ratings of Group A by C, M, T, and G (Rating I)	67
15.	Intercorrelations of the IQ Ratings of Group A by C, M, T, G, and St (Rating II)	68
16.	Reliability of Four Raters, C, M, T, and G, as Shown by the Trial and Final (Rating II) IQ Estimates on Group B	69
17A.	Probable Correctness of the AI IQ Means of the Groups at Successive IQ Levels	73
17B.	Probable Correctness of the AI IQ Means of the Groups at the Upper IQ Levels	74
18.	Grade Ratings on Data in Terms of the Stanford-Binet Test Variously Abbreviated, with the Reliability Coefficient of Each	76
19.	IQ Estimates Grouped by Hundred-Year Periods and by the Reliability of the Data upon Which the IQ Is Based	80

Table		Page
20A.	Obtained and Corrected AI IQ Estimates for Certain Groups	83
20B.	Obtained and Corrected AII IQ Estimates for Certain Groups	84
21.	Group of Cases Rated (AI) IQ 100	88
22.	Group of Cases Rated (AI) IQ 105	90
23.	Group of Cases Rated (AI) IQ 110	93
24.	Group of Cases Rated (AI) IQ 115	96
25.	Group of Cases Rated (AI) IQ 120	102
26.	Group of Cases Rated (AI) IQ 125	105
27.	Group of Cases Rated (AI) IQ 130	110
28.	Group of Cases Rated (AI) IQ 135	113
29.	Group of Cases Rated (AI) IQ 140	118
30.	Group of Cases Rated (AI) IQ 145	122
31.	Group of Cases Rated (AI) IQ 150	126
32.	Group of Cases Rated (AI) IQ 155	131
33.	Group of Cases Rated (AI) IQ 160	135
34.	Group of Cases Rated (AI) IQ 165	140
35.	Group of Cases Rated (AI) IQ 170	143
36.	Group of Cases Rated (AI) IQ 175	145
37.	Group of Cases Rated (AI) IQ 180	149
38.	Group of Cases Rated (AI) IQ 185	153
39.	Group of Cases Rated (AI) IQ 190	156
40.	Index of Environmental Influences for Each of Five AII IQ Groups	166
41.	Index of Interests—Kind, Breadth, and Intensity—For Each of Five AII IQ Groups	168
42.	Reliability of Trait Ratings by Two Raters (C and Mk)	170
43.	Four Typical Groups of Youthful Geniuses (Included in Group C) with Descriptive Data	181
44A.	Comparison of Trait Ratings of Five Groups (Averages of Trait Subgroups)	183
44B.	Comparison of Trait Ratings of Five Groups of Eminent Men (an Index of the Presence of Five Elements of Personality and Two Composites)	183
45A.	Frequency Distribution of AI IQ's by Field or Profession in Which Eminence Was (Primarily) Achieved	192
45B.	Frequency Distribution of AII IQ's by Field or Profession in Which Eminence Was (Primarily) Achieved	193
46.	Classification and Description of Groups for Which Trait Profiles Have Been Calculated	194
47.	Distribution of AI and AII IQ Ratings by Field and by the Reliability of the Data upon Which the IQ Rating Is Based	196
48A.	Grouped Trait Ratings of Twelve Groups of Young Geniuses	198
48B.	Grouped Trait Ratings of Twelve Groups of Young Geniuses	198
49.	Trait Rating of 16 Groups of Young Geniuses. *Facing*	212

LIST OF FIGURES

Figure		Page
1.	Individual and Average AI IQ Ratings of 282 Young Geniuses (Group A). *Insert facing*	52
2.	Distribution of AI and AII IQ Estimates of 231 Young Geniuses Grouped by Nationality	58
3.	Distribution of AI and AII IQ Estimates of 282 Young Geniuses Grouped by Field of Later Achievement	60
4.	Individual and Average Trial Ratings of 19 Young Geniuses (Group B)	65
5.	Reliability of Four Raters Indicated by the Agreement of Their Trial and Final (Rating II) IQ Estimates	70
6.	Individual and Average BI IQ Estimates of 19 Young Geniuses (Group B)	71
7.	Distribution of Reliability Coefficients of Data upon Which AI and AII IQ Estimates of 282 Young Geniuses Were Based	78
8.	Trait Profiles of Group C and Four Subgroups Compared	182
9.	Trait Profiles of Subgroups of Young Geniuses, Grouped by Field of Later Achievement. Comparison with the Profile of Average Unselected Youths (the 0 Base Line)	188
10.	Trait Profiles of Subgroups of Young Geniuses, Grouped by Field of Later Achievement. Comparison with the Profile of Group C (Eminent Men)	190

PART I. METHODS AND RESULTS

CHAPTER I

INTRODUCTION

The factors which determine the appearance and development of geniuses have presented a persistent problem ever since man, in his earliest study of man, began to take account of individual differences. Like our earliest psychologically inquisitive ancestors, we are concerned to know what weight is to be attached to various circumstances, such as birth, endowment, and education, in the character of a man of genius, whose appearance among his fellows has long been recognized as due not to a single cause, but rather to "the happy result of many concomitant circumstances." It was known to the author of the greatest ideal republic that the ablest citizens in the state are the sons and daughters of the ablest parents. Plato was further aware that the transmission of physical and mental characteristics by heredity would not insure the full realization of their possibilities in the individual. Hence, as a preliminary to an adequate education for the choicest spirits, he provided that a selection should take place in childhood by simple intelligence tests, which he believed would suffice to determine the more gifted. The abilities of the superior youths were then to be developed by a special course of training devised to afford adequate stimulus and appropriate opportunity.

The whole problem of the origin, selection, and education of the gifted is one of profound concern, now as in Plato's day; for upon an adequate solution of it depend the appropriate and sufficient training of children of ability, the conservation of talent, and a possible increase in the production of significant and creative work. The study of the heredity, native gifts, and kinds of education that have most contributed to advance those who in the past became the ablest citizens of our world has long been recognized as a means of throwing considerable light upon the conditions which may be expected to produce and foster genius in our time and hereafter.

Galton and others have investigated the part played by the circumstance of birth, the first of the three important factors which condition the appearance and the development of geniuses. Our concern is now with the second factor: for an investigation of the native endowment of the most able individuals follows logically upon the investigation of their heredity and must precede any attempt to analyze the third element—the contribution of education.

In the study summarized in the following pages an attempt has been made to find in historical accounts of the early years of great men an answer to the question: What degree of mental endowment characterizes individuals of genius in their childhood and youth? We are primarily concerned with an examination and an evaluation of the general native ability of which the early behavior of geniuses gives evidence. Ultimately this problem must be solved by experimental methods; they alone can render a decisive and unequivocal answer. It is possible, however, that the true solution may be roughly indicated by historical research, even though the methods of such an investigation are less exact and the results obtained are correspondingly less absolute.

The purpose of this study is to characterize a group of young geniuses with respect to certain mental traits. The subjects described are 301 of the most eminent men and women of history. The data discussed are the historical records of their heredity, their childhood, and their youth. The method employed is that of historiometry. The criteria used in measuring the traits concerned are recognized psychological indices.

The group of subjects whose early behavior forms the basis of the present study includes great men and women who lived between the years 1450 and 1850. It is a representative group, and results obtained from an investigation of the childhood of its members may be expected to hold true for eminent men and women in general. In so far as interest obtains in these particular geniuses, a characterization of their early development has unique value; research into the early lives of less eminent individuals can scarcely equal a study of this group in intrinsic interest; and subjects who in individual significance would approach the level

of the subjects of this study could not readily be obtained for a laboratory experiment, even if it were extended over the next four hundred years.

The present investigation, in dealing with the problem of the degree of native mental endowment characterizing those who achieve eminence, scrutinizes one aspect of the question of the relation between endowment and achievement. The correlative aspect of the larger problem is the degree of eminence attained by children possessing a given degree of native mental endowment. Stated in its simplest terms, this question is concerned, on the one hand, with the level of native endowment which produces the most superior men, and, on the other, with the level of attainment or the degree of eminence attained by the most superior children. Its final solution in both aspects requires a complete natural history of the most highly endowed individuals. Data adequate to provide all of the details as well as the general outlines for a complete and accurate picture can be obtained only from an empirical investigation including numerous laboratory tests as well as minute and detailed observation. The study would necessarily extend over a period of years and follow the individuals concerned from their childhood through the age of achievement. The subjects of study would comprise four groups, the natural history of each of which is requisite for a solution of the whole problem. The first group would be made up of individuals of great natural endowment, while the second (required for comparison) would be limited to individuals of average endowment. The third would be composed of persons who had achieved eminence, the fourth (again for comparison), limited to persons of average attainment. The two aspects of the question could be discussed on the basis of the evidence obtained from these four groups. From a study of the first two would appear the relative achievements, or the eminence reached by individuals at two levels of endowment. From a study of the last two would appear the relative degrees of native endowment which characterize the individuals who have attained to given degrees of achievement or eminence.[1]

[1] At least a part of the great experimental study outlined is to be carried out, for the first group is under observation at Stanford Univer-

A study based on the documentary evidence of history, where research is devoted to historical instead of to living subjects, offers a practical substitute for an experimental research, such as the one outlined. Historical data are available for a vast number of subjects; and a study of any group of them offers interesting and distinctly suggestive results, indicating the nature of the answer to the question which concerns us, even if our conclusions must await ultimate verification from a study which is based directly on living subjects.

Woods[1] has stated that "history is really but a branch of biology. Some of the most difficult problems in evolution . . . are today just beginning to be dealt with by mathematical methods, and the results already warrant the hope that we may by carefully collecting facts, and not by mere theorizing and essay writing, arrive at conclusions which all must agree upon." Records pertaining to the childhood and youth of 301 eminent individuals, including artists, musicians, soldiers, statesmen, and writers, offer the facts to be carefully collected and examined for the present inquiry. They furnish a basis for answering the questions involved in our problem.

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sity. (Cf. Terman, Lewis M., *et al., Mental and Physical Traits of a Thousand Gifted Children.* Genetic Studies of Genius. Vol. I. Stanford University Press, 1925.) It consists of children of exceptional general ability selected on the basis of a minimum score in a mental test, a score attained by not more than one half of one per cent of unselected school children. Comparison of the ultimate attainment of this group with that of a group of children of average general ability (as measured by the same tests) will go far toward answering the question as to what degree of eminence is achieved by children of any given degree of mental endowment. If the scope of the Stanford study were extended to include a large group of unselected children, and were carried on under the same conditions as obtain for the subjects now under investigation, we should have, when these individuals reach their highest achievement level, an excellent basis for conclusions as to the antecedents in nature and nurture, the pre-efficients or prerequisites, in heredity and environment, to the achievement of the eminent and the mediocre; and these could be compared for the various levels of achievement. Such an extension of the Stanford study is at present effectually prevented by the demands which it would make—its requirement of the devotion of a lifetime by a number of skilled psychologists, and the enormous cost of an experiment on so vast a scale.

[1] Woods, Frederick Adams, *Mental and Moral Heredity in Royalty: A Statistical Study in History and Psychology,* New York, Holt, 1906, p. iv.

The first of these concerns the "brightness," measured by intelligence-test standards, of men and women of the greatest achievement. How would these young geniuses of the past have tested on an intelligence scale? What mental age is indicated by the behavior or performance of a four-year-old Cuvier, a six-year-old Coleridge, an eight-year-old Goethe, or a ten-year-old Berkeley? And, secondly, if the youthful intelligence does not sufficiently account for the later achievement, what other recorded traits of character may explain it? Do great energy and passionate ardor compensate for less intellectual power? Are any two of these three, health, interest, and ability, equal to any other two, as Galton has asserted, in making a mark that the world can and must see and recognize? And, if in terms of a test scale the "brightness" indicated by the recorded behavior of a Byron or a Davy is just equal to that registered in the childhood activity of a Mozart or a Schleiermacher, can we read from the same records why one became a poet, another a scientist, another a musician, another a religious writer? Are there *characteristics of genius*—traits that mark all of those who will one day attain eminence? And if there are, to what extent is *intelligence* one of them?

How shall we approach these problems? Do historical reports afford a basis for ratings of intelligence, of character traits, or of interests? The answer lies in the results of the study. For if the records are true—and of this their verisimilitude is the best evidence—and if from these records reliable and valid results are obtained by the same methods we should apply in rating individuals today, then they may be accepted as comparable to results based on living subjects. Either the historical or the experimental method is valid and reliable to the degree to which the particular measure employed is valid and reliable for the purpose to which it is put. The judgments reported here are those of two or more qualified judges. The agreement of their estimates has been measured, and from the measures of agreement the probable accuracy of the obtained values has been computed.

The reader should bear in mind that the individual measures have been obtained *on the basis of evidence.* The

IQ[1] of Newton or of Lincoln recorded in these pages is the IQ of the Newton or of the Lincoln of whom we have record.[2] But the records are admittedly incomplete. The most reliable case studies that could be compiled prove to have a reliability as measures of intelligence represented by the coefficient .82. (For purposes of the present study the reliability of a Stanford-Binet test has been assumed to have a reliability coefficient of .90.)[3] A shrewd estimate based on little information is better than none at all, and true values may be approximated from incomplete evidence. In the final results obtained, the loss in precision due to the abbreviated character of the material is partially compensated for by the measurement of a considerable number of cases, where the average estimate becomes a fairly reliable measure of the whole group.

The results obtained will contribute to the solution of the problem of the native endowment of genius in proportion to the degree of accuracy of the original records, the care with which they have been assembled, the ability and insight of the investigators and of the judges, and the validity and the reliability of their standards of measurement.

The investigator has been acutely sensible of the temerity of the present undertaking and almost painfully aware of a persistent hesitancy in facing its peculiar problems. The attitude of one venturing upon a task of this kind has been well expressed by Galton: "I have been conscious of no slight misgiving that I was committing a kind of sacrilege whenever . . . I had occasion to take the measurement of modern intellects vastly superior to my own, or to criticize the genius of the most magnificent historical specimens of our race. It was a process that constantly recalled to me a once familiar

[1] The IQ is the *Intelligence Quotient* or *Mental ratio*, the ratio of mental age to chronological age. See Terman, L. M., *The Measurement of Intelligence*, Boston, Houghton, 1916.

[2] A corrected estimate of the IQ has also been made, i.e., an approximation to the IQ that would have been obtained if the data had all been equally and sufficiently reliable as a basis for an IQ rating.

[3] Recent studies indicate that the reliability of the Stanford Binet test is more nearly expressed by a coefficient of .95 or better. Thus it appears that the reliability coefficients of the present investigation are slightly underestimated.

sentiment in by-gone days of African travel, when I used to take altitudes of the huge cliffs that domineered above me as I travelled along their bases, or to map the mountainous landmarks of unvisited tribes, that loomed in faint grandeur beyond my actual horizon."[1]

The records which the heroes of the past have left of their remarkable achievement in childhood and youth offer a mine of psychological material. It is believed that conclusions derived from an evaluation of certain items may prove suggestive in connection with a comparative study of gifted children today, and that the original case studies will be found to contain information of unusual significance and wide general interest even in the abbreviated form in which they are presented here.

[1] Galton, Francis, *Hereditary Genius: An Inquiry into its Causes and Consequences* (first published, 1869), second edition, London, Macmillan, 1892, p. 21.

CHAPTER II

EARLIER STUDIES AND A NEW METHOD

The volume of philosophical, literary, and historical biography in course of accumulation since the beginning of recorded history indicated profound human interest in the problem of the genius before science attempted to isolate its elements or to examine them by exact methods. Within the last few decades the study of distinguished men has become a recognized and fruitful field for differential psychology. Analytical and statistical means have made available quantitative measurements of factors involved in the genesis, constitution, and function of the members of the group of individuals generally recognized as superior to the average man in achievement, ability, or character.

Studies of Great Men and Theories of Greatness

In the earlier studies of great men, as in normal and abnormal psychology in general, vague description and general characterization preceded exact analysis, but sometimes indicated intuitively conclusions later reached and verified by scientific procedures. Innumerable investigations were made and innumerable explanations and theories were evolved in an attempt to solve the riddle of human greatness. Of these theories two have been most conspicuous in the history of our problem. The first emphasized the special character of the great man and, recognizing in him the representative of a genus practically separate and distinct from the rest of mankind, led to worship of him as the creator of human progress; the second regarded him as a product of external forces in the social movement, attributed to him no essentially characteristic qualities, and reduced him to the level of the mediocre where his identity and individuality became indistinguishable in the mass. Each of these theories was incomplete and inadequate without the contribution of the other. Hegel,[1] in figurative language,

[1] Hegel, G. W. F., *Lectures on the Philosophy of History*, (Tr. Sibree), London, Bell, 1894, p. 32.

expressed an interpretation of the man of genius which embodies both points of view: "World-historical men—the Heroes of an epoch—must, therefore, be recognized as its clear-sighted ones; *their* deeds, *their* words are the best of that time . . . . Their fellows, therefore, follow these soul-leaders; for they feel the irresistible power of their own inner Spirit thus embodied . . . . They are *great* men, because they willed and accomplished something great; not a mere fancy, a mere intention, but that which met the case and fell in with the needs of the age."

Historians and biographers described, analyzed, and classified the great man and traced his influence in social institutions. However, but little progress could be made in the analysis of the psychological aspect of his natural history until the evolutionists began to examine and evaluate the aggregate of his antecedents and the appearance and development of his powers under the particular conditions of his life. The emphasis of Darwin and Spencer on the importance of a study of origins prepared the way for the early contribution of Galton, who made the first significant quantitative and comparative examination of the data on the genesis and constitution of men of genius. Galton's findings were of great and lasting significance. His inauguration of the use of statistical method in the study of human traits was epoch-making. His final definition of the status of the problem, as he left it at the conclusion of his first study, became the starting point for discussion and research which still continue.

Galton[1] summarized his conclusions in two statements: (1) "No man can achieve a very high reputation without being gifted with very high abilities"; and (2) "Few who possess these very high abilities can fail in achieving eminence." As Ward[2] has pointed out, it is clear that the evidence furnished by Galton in support of his second proposition is not only inadequate, but in important instances, contrary to facts now known with reference to the individuals cited. The significance of Galton's enthusiastic extension of his main thesis beyond its legitimate territory lies in the stimulation which it offered other scientists to refuta-

[1] Galton, *Hereditary Genius*, p. 43.

[2] Ward, Lester F., *Applied Sociology*, Boston, Ginn, 1906.

tion and attack, with the inevitable invitation to counter-attack and to still more extended research.

It would doubtless be admitted by both parties to the controversy that, if eminence be defined as achievement of any given (attainable) degree of reputation or recognition, it is probable that "very high abilities" can be defined in such a way that "very few" (also to be defined) who possess them will fail to attain to it. The problem from the point of view of Galton's critics is this: Given equally "high abilities," what conditions of nurture will accelerate the development of these abilities to the point of the highest achievement possible, and what conditions will retard it so that neither that point nor yet the minimum for "eminence" will be reached?

Recent investigations of the general problem of the great man have ordinarily emphasized one or the other of two factors involved in the genesis of eminence: the biological (nature) or the sociological (nurture). Among the outstanding studies with a biological bias are those of Galton, including *Hereditary Genius* (1869), *English Men of Science* (1874), *Human Faculty* (1883), *Natural Inheritance* (1889); Th. Ribot's *L'Hérédité Psychologique* (1873), William James's *Great Men and Their Environment* (1880); the recent work of Woods;[1] and, less directly, certain contributions of Davenport[2] and others. These writers, following Galton, either defend the theses which he laid down and direct their study to a theoretical analysis of individual differences which are in the main the result of heredity, or else, on the basis of new data which they have gathered, come to conclusions similar to his. They do not completely deny the influence of nurture, but in their investigations they ignore its effect upon the kind and the number of men who achieve eminence. They do this either without any explanation of their attitude or after stating a conclusion, arrived at intuitively or based on insufficient evidence, that the influence of nurture is negligible in comparison with that of nature. The biologists are inclined thus to restrict their study to the influence of nature.

[1] Woods, *Mental and Moral Heredity in Royalty.*

[2] Davenport, Charles Benedict, Assisted by Scudder, Mary Theresa, *Naval Officers: Their Heredity and Development,* Washington, Carnegie Institute, 1919.

Those who emphasize the selective or "veto" power of nurture in connection with eminence are Odin,[1] Fiske,[2] Allen,[3] and Ward.[4] The members of this group admit the claims of their opponents with reference to innate inherited abilities and individual differences, but insist upon a more thorough investigation of the neglected factor of nurture. They are not convinced that the "very few" who are thwarted by external circumstances, while possessing ability capable of achievement, are so few as to be negligible. They believe that in the lower strata of the group who are above average in ability the number of individuals thus thwarted may be so considerable as to constitute an expensive loss to production. This is the typical view of the reformer, the educator, the sociologist, and the clinical psychologist.

Both of the groups discussed have regarded eminence as the result of abilities higher than the average but not essentially different from the average in kind. A "genius" is thought of by neither of these groups as other than a strictly normal deviation from the average on the plus side. The point of view from which the great man appears to present a pathological condition or an immoral craving has been decried by Hegel,[5] among others, as one assumed by the petty jealousy of little minds. " 'No man is a hero to his *valet-de-chambre*' is a well-known proverb; I have added—and Goethe repeated it ten years later—'but not because the former is no hero; but because the latter is a valet.' " And yet another school, of which Lombroso[6] is the leading modern exponent, has found sufficient evidence for the conviction that genius is akin to insanity—an abnormal and unbalanced deviation from the normal type. Lombroso's method of heaping up instances which support his thesis, while omitting mention of those which contradict it, is not convincing; and perhaps even less convincing, though more

[1] Odin, Alfred, *Genèse des Grands Hommes*, Gens de Lettres Français Modernes, Paris, 1895. (Two vols.)

[2] Fiske, John, "Sociology and Hero-Worship. An Evolutionist's Reply to Dr. James." *Atlantic Monthly*, Vol. 47, January 1881, pp. 75–84.

[3] Allen, Grant, "The Genesis of Genius." *Atlantic Monthly*, Vol. 47, March 1881, pp. 371–381.

[4] Ward, *Applied Sociology*.

[5] Hegel, *Philosophy of History*, p. 33.

[6] Lombroso, Cesare, *The Man of Genius* (Engl. tr.), London, Scott, 1891.

subtle, is his implied extension of a definition of insanity to include all who show any deviation from an assumed standard of normality. According to this definition the "man endowed with superior faculties" is, *ipso facto*—as a deviation from the average—at once entitled to a place in the category "abnormal." In this case the latter term appears to have lost its usual significance.

Two recent writers, Ostwald[1] and Cattell,[2] have admitted the validity of the arguments for both nature and nurture and have proceeded to take both elements into account in their studies. Ostwald believes that, although the psychological and physiological pre-efficients which condition the development of a boy into a great man, are not a matter of chance, nevertheless, many more potentially great men are born than actually reach the limit of their capacity. He concludes that if we were more thoroughly acquainted with the natural history of this species, we should learn to avoid the harmful influences which bring about the destruction of many a genius. Cattell sums up the matter thus: "It is evident that there are two leading factors in producing a man and making him what he is: one the endowment given at birth, the other the environment into which he comes. The main lines are certainly laid down by heredity—a man is born a man and not an ape. A savage brought up in cultivated society will not only retain his dark skin, but is likely to have also the incoherent mind of his race. On the other hand, environment has at least an absolute veto. Had the infant Newton been cast among Hottentots he could have announced no laws of motion. But were those differences, small from the point of view of organism, great from the point of view of function, which distinguished Dante from his Florentine fellow townsmen, innate or due to the circumstances of his life? Here the biological parallel may be serviceable. Are those variations which produce new species caused by the environment? Many zoölogists and physiologists answer in the affirmative, but it appears rather that life develops not on account of, but in large measure in spite

[1] Ostwald, Wilhelm, *Grosse Männer*, Leipzig, Akademische Verlagsgesellschaft, 1909.

[2] Cattell, J. McKeen, "A Statistical Study of Eminent Men," *Popular Science Monthly*, February 1903, pp. 359–377.

of, physical forces—these tend to the dissipation of energy, they are the causes of death rather than of life. So in like manner it seems that the environment would tend to reduce the great man to its level rather than to lift him above it—Dante wrote in spite of his surroundings, not on account of them. Still the environment counts for much. If the seed of the white pine is dropped among New England rocks it will grow into a small bush; if planted in the rich soil of the south it will be a great tree."

Historical Methods of Approach

In studies of great men certain lines of inquiry have been pursued which may be classified as follows: (1) exhaustive analyses of the individual members of a group of unselected men of eminence; (2) similar analyses of the members of a group of unselected men of average attainment; (3) statistical studies based on 1; (4) statistical studies based on 2; (5) comparative studies based on 1 and 2; (6) comparative studies based on 3 and 4.

Definite plans for the psychological analysis of individuals have been evolved by Stern,[1] Toulouse,[2] and others. The number of complete studies made according to these plans is still insufficient to serve as a basis for extended statistical measurement. Individual descriptive psychological studies have been made from various points of view, including a number of Freudian analyses of writers, musicians, painters, philosophers, scientists, statesmen, and religious leaders.

Statistical studies based on encyclopedias and biographical dictionaries have established the inheritance of mental and moral traits and the distribution of eminence by centuries, sex, and geographical location. They have contributed to (1) the determination of the facts regarding the distribution of eminence by nationality and race, social class, heredity, and parentage; and (2) the characterization of eminent men with respect to (*a*) their childhood and youth, marriage and family, duration of life, pathology, stature,

[1] Cf. Margis, Paul, *E. Th. Hoffmann: Eine psychographische Individualanalyse*, Leipzig, Barth, 1911.

[2] Toulouse, E., *Émile Zola, Société* d'editions scientifiques, Paris, 1896; and *Henri Poincaré*, Paris, Flammarion, 1909.

and certain other traits; and (*b*) their formal and informal education, interests, and achievements. Statistical method has been employed in investigating various problems connected with the biology of eminent men. The psychology of men of genius has been discussed in theory. A few complete individual psychological studies have been made. Ostwald's work suggests a bridging of the gap between the two methods by a group psychological study of men of achievement. The present investigation is also twofold in its method. It is an attempt to gather data of psychological significance concerning a number of individuals of eminence, and to base upon these data a statistical study of certain aspects of the psychology of genius. This is logically the next step in the general study of the natural history of great men of the past. If the technical difficulties offered in assembling the material and in adequately evaluating it can be overcome, the investigation of historical data may yield valuable and interesting psychological results.

Eminence as the Criterion of Genius

Eminence can be measured by various objective means, and groups of individuals of any given degree of eminence can be selected for comparative study on the basis of readily applicable measures. However, one may doubt whether a comparative study of men of eminence will yield significant results, since, after all, our vital concern is not with those whose gifts (perhaps in some cases through chance) have been recognized, but rather with men who are great, regardless of the world's recognition of them.

If an independent, objective criterion of "greatness" could be evolved, the "eminence" standard would, in such a study as the present, be discarded as less reliable because less truly a measure of native ability. But an objective measure of achievement, valid at one and the same time in many fields, in many epochs, and in many countries, is not available. The question is then: Can we approach the study of great men indirectly through a study of eminent men? To what extent does achievement coincide with recognition? We may approach this question inductively by reviewing certain representative methods of delimiting groups of eminent men.

Galton's study was concerned with the man of "genius." He defined a man of "genius" in Dr. Johnson's language as "a man endowed with superior faculties."[1] His intent was to limit his study to persons of great natural endowment, but he found that his criterion for endowment was actually recognition, the criterion for eminence. At the same time he was convinced of the justification for this procedure, and he concluded, from a consideration of his data, that the most illustrious reach their high position, in general, because they are the most able. He defined and studied two groups: the "eminent" and the "illustrious." An "eminent" man is in Galton's study "one who has achieved a position that is attained by only 250 persons in each million of men, or by one person in each 4,000," while an "illustrious" man is as one in a million, or even as one in many millions—a man whom the whole intelligent part of the nation mourns when he dies; who has, or deserves to have, a public funeral; and who ranks in future ages as a historical character.

Galton's method of selecting subjects for study did not entirely exclude subjective evaluation. He purposely included those who had ability and did achieve, while those who achieved without ability he discarded as not having actually been great men, leaders of opinion, originators, or men to whom the world deliberately acknowledged itself largely indebted. Thus his group of the eminent was a group of the most able, and his conclusions based upon individuals of the highest reputation, in the opinion of their own and later ages, were essentially the conclusions that would be reached by a study of individuals of the highest degree of ability.

By more strictly objective methods Ellis[2] and Cattell[3] arrived at similar conclusions. These writers found that representative biographical authorities make a common-sense distinction between two groups whom the world for a time applauds equally, recognizing those of genuine merit, and distinguishing from them those whose reputation is fortuitous.

Cattell derived a list of the 1,000 most eminent men of history by measuring the space allotted in biographical dic-

[1] Galton, *Hereditary Genius*, p. viii.

[2] Ellis, Havelock, *A Study of British Genius*, London, Hurst, 1904.

[3] Cattell, *A Statistical Study of Eminent Men.*

tionaries.[1] He arranged the names of the 1,000 in the order of eminence measured, in this case, according to the extent to which the world has talked about them, and with a "probable error" as an index of the correctness of each position. He concluded: " 'Some are born great, some achieve greatness, and some have greatness thrust upon them.' We have men of genius, great men, and men merely eminent. Thus many a genius has been a 'mute inglorious Milton' lacking the character or the circumstance for the accomplishment of his task. Washington was scarcely a genius, but was a truly great man. Napoleon III was neither a genius nor a great man, but was eminent to an unusual degree." Cattell's method of procedure was based directly upon a criterion of eminence, not upon one of genius; nevertheless, most of Galton's "illustrious" men are included in Cattell's list.

Havelock Ellis' *Study of British Genius* is based upon 1,030 distinguished names from the *Dictionary of National Biography.* Ellis' definition of "genius" corresponds to Galton's usage. His primary basis for selection was similar to Cattell's—the amount of space allotted in biographical dictionaries—but Ellis omitted royalty and members of royal families and of the hereditary nobility unless their distinction was due to a kind of performance which could not be attributed primarily to position and influence. He further included the names of some individuals who were considered by the biographers to have shown intellectual ability of a high order although their biographies occupied less than the prescribed space; and he discarded others who, though occupying the required space, were considered to have displayed no high intellectual ability.

Candolle,[2] Odin,[3] and Clarke[4] agree that a measure of

[1] No name was included unless it occurred in two or more of the dictionaries. The sources used were: Lippincott's *Biographical Dictionary, Encyclopedia Brittanica,* Rose's *Biographical Dictionary, Le dictionnaire de biographie générale,* Beaujean's *Dictionnaire biographique,* and Brockhaus' *Conversationslexikon.*

[2] Candolle, Alphonse de, *Histoire des Sciences et des Savants depuis deux Siècles,* Genève, Georg, 1885.

[3] Odin, *Genèse des Grands Hommes.*

[4] Clarke, Edwin L., *American Men of Letters, Their Nature and Nurture,* New York, Columbia University, 1916.

recognition serves as a practical basis for the selection of a group of able men, and their lists are compiled by the use of objective methods similar to those of Cattell and Ellis.

All of the investigators expressly state, or tacitly admit, that the eminent man may be great in the estimation of the world of his contemporaries, of posterity, or of both, without being essentially a great man. Greatness of this kind is apparent and not real. It is not due to genius in any accepted sense of the word. It is not associated with high talents or with general ability. But as long as our standards for eminence are imperfect measures of innate ability or of true greatness, eminent men of this kind will be included in our lists.

On the other hand, the great man who is inherently great but who fails of recognition, fails also to achieve a position of eminence in the estimation of the world. A painter whose creation is destroyed before it is seen, or an author whose work is lost before it has been read, may be great but he can scarcely be eminent.

Hirsch,[1] on the basis of the opinion of historians, agrees with the scientific investigators that inasmuch as eminence or world reputation represents the recognition of the behavior aspect of greatness it tends to distinguish the individuals of real ability as far as nurture has permitted them to develop their talents. A certain number of those who simulate the qualities of great men win temporary recognition, but time gradually sifts out the *"nicht eminente Berühmtheit."* Thus, while a group of the eminent of our own day includes many whom a later age will cease to remember, our record of the most eminent men of the past includes just those creative and constructive thinkers who combined an "illustrious" fame with high achievement and with the evidences of intrinsic greatness.

In conclusion, the objective determination of genius and of its degree requires standards not yet evolved, but the determination of eminence and of its degree is possible by the use of standards already available. Moreover, all obtainable indications favor the view that in general great

[1] Hirsch, Julian, *Die Genesis des Ruhmes: ein Beitrag zur Methodenlehre der Geschichte,* Leipzig, Barth, 1914.

eminence is coincident with great genius, and hence evidence as to the early development of a group of eminent men—men representing what successive centuries have recognized as significant achievement and as true greatness—may be accepted as almost equally descriptive and characteristic of the early development of men of genius. Remembering that a group of the most eminent men is made up of individuals who are not all equally great, but who include in their number the most illustrious, we may, from a study of their native endowment evidenced in early youth, derive some knowledge that will contribute to our understanding of genius in the making.

Psychometry and Historiometry

The present investigation concerns a problem in the field common to psychology and history. The method of approach employed was suggested by Terman[1] in his discussion of the IQ of Francis Galton—a study of the "brightness" of a historical character by the application to historical data of the criteria of standardized measures of the mental ability of children. It was appropriate that the first study in this special field of genetic psychology should have been devoted to the determination of the mental qualities of Galton, the ingenious originator of the very method here turned to a new account.

Stern[2] in Germany, and Woods[3] in America have been especially concerned with the methodology of Galton's new science which Woods has aptly christened "historiometry." Justification of the method is its use by Galton, Odin, Ellis, Woods, Cattell, Terman, and others. But it may be well, in order to delimit the subject and offer evidence for its legitimacy, to consider some fundamental propositions whose acceptance or demonstration is assumed in the researches of these investigators and in all other studies of like nature.

[1] Terman, Lewis M., "The Intelligence Quotient of Francis Galton in Childhood," *American Journal of Psychology,* Vol. 28, 1917, pp. 209–215.

[2] Stern, William, *Die Differentielle Psychologie,* Leipzig, Barth, 1911.

[3] Woods, Frederick Adams, "Historiometry as an Exact Science," *Science,* N. S. Vol. 33, No. 850, April 14, 1911, pp. 568–574.

Fundamental Propositions

The assumptions or preliminary conclusions of students in the new field may be reduced to four statements, as follows:

1. *The place of historical method in psychology.* History furnishes material which is of use to the psychologist and which is not otherwise, or as adequately, available.

2. *Categories of available material and their uses.* The material consists of two kinds, each of which has its own distinct value for psychological research: (*a*) Material in one category is made up of documents and original sources of every kind. (*b*) Material in the other category is secondary in nature and consists of biography and its subdivisions —autobiography, biography proper, and the source afforded by biographical compendia.

3. *The legitimacy of historiometry as an exact science.* Historical data in both categories are sufficiently reliable for the use to which they are put by historiometers.

4. *The reliability and the validity of the methods of historiometry.* The methods used are sufficiently reliable, as here applied, for the acceptance of results dependent upon them.

Stern[1] presents a thorough treatment of the first two propositions, and Woods[2] of the last two. Our discussion follows the arguments of these authors.

1. *The place of historical method in psychology.* The crystallized imprint of a personality, the mould of a character, affords a permanent source for a study of traits, elements, and causes of human behavior which may become the basis for psychological study and measurement.

For the investigation of problems of human heredity, historical data furnish the only extensive basis available. Statistical method unlocks this vast storehouse, putting its wares at the disposal of differential psychology, and affording an opportunity for history and psychology to become mutually serviceable and stimulating.

Historical data furnish the necessary basis for a study of the large groups of subjects which differential psychology

[1] Stern, *Differentielle Psychologie.*

[2] Woods, *op. cit.*

requires, and, at the same time, render available the special points to be considered under the changing conditions in varied climes and in varied ages. Because history deals with unusual personages it offers especially valuable matter for the study of exceptional ability or genius. The average or commonplace persons of history are in general those who have had greatness thrust upon them. They are found, for the most part, among the nobility and aristocracy. Woods[1] has shown how profoundly interesting may be a comparative study which scrutinizes these less able individuals together with their more able contemporaries and associates.

2. *The categories of available material and their uses.* Historiometrical research may depend for its material on (*a*) biography, (*b*) original sources, or (*c*) a combination of the two.

a) The use of biographies. Not only for want of historical training does the psychologist turn naturally to prepared biographies for his material, for where the investigation is concerned with more than one individual, and especially when extended to a great series of individuals, the task would be well-nigh impossible if all original material bearing on each of the cases were to be examined minutely. Where dates or other definite quantitative items afford the facts desired, encyclopedias or biographical dictionaries are often adequate. Following Candolle[2] and Odin[3], Reibmayr,[4] Feis,[5] Cattell,[6] and Castle[7] have based their studies on biographical notices from compendia of this nature. It is clear that an exhaustive study based on material of greater length for a group of any size would be impracticable were biographies used instead of the briefer sketches from the encyclopedias. It is perhaps significant that, with the excep-

[1] Woods, *Mental and Moral Heredity in Royalty.*

[2] Candolle, *Histoire des Sciences.*

[3] Odin, *Genèse des Grands Hommes.*

[4] Reibmayr, Albert, *Die Entwicklungsgeschichte des Talents u. Genies,* München, Lehmann, 1908.

[5] Feis, Oswald, *Studien über die Genealogie u. Psychologie der Musiker,* Wiesbaden, Bergmann, 1910.

[6] Cattell, *A Statistical Study of Eminent Men.*

[7] Castle, Cora Sutton, *A Statistical Study of Eminent Women,* New York, Science Press, 1913.

tion of Heymans'[1] work, investigations based on other than tertiary materials have seldom extended beyond single case studies. Binet's *Hervieu*[2] and Hall's *Jesus*[3] are examples of the exhaustive method, as is also, although less typically, Ostwald's[4] group of analyses comprising six studies.

For psychological analysis a thorough study of complete biographies or original sources is obviously essential. Whichever kind of material is used, it must not be forgotten that the point of view of the psychologist differs materially from that of the biographer. The former analyzes, the latter synthesizes. Whenever biographical works are used, this must be kept in mind; and from the work of the biographer must be extracted the elementary facts stripped of his, and, as far as possible, any other subjective interpretation. The use of a number of independent works is advisable; these should represent opposite standpoints where such exist.

The best biographies for the purpose are those which contain the least comment. Literary biographies or interpretations are often of little value for the historiometer; while autobiographies may be used only with caution. In general, the latter are also interpretations; but their advantage over biographical interpretations lies in the fact that the interpreter and the interpreted are one and the same. Fortunately for the historiometer, chronicles of the period of childhood and youth appear less liable to interpretative distortion than accounts of later life. Disagreements between biographers in the discussion of the early years of their subjects are infrequent, and the records of youth are on the whole objective.

b) Use of sources. Documents of every variety, including letters and contemporary descriptions, are serviceable to the psychologist in the rôle of historiometer. Knowledge of the development and change in the significance of terms, and some acquaintance with the social and economic back-

[1] Heymans, O., "Über einige psychische Korrelationen." *Zeitschrift für Angewandte Psychologie*, Bd. II.

[2] Binet, Alfred, "Portrait Psychologique de M. Paul Hervieu," *Année Psychologique*, Tome X.

[3] Hall, G. Stanley, *Jesus the Christ in the Light of Psychology*, New York, Doubleday, 1917. (Two vols.)

[4] Ostwald, *Grosse Männer*.

ground in various countries and various ages are prerequisite to accurate work. Research based solely on original matter, requires a thorough acquaintance with historical method if the student is to avoid dilettantism. A review of a number of published studies leads one to emphasize with Stern the need, fundamental in this field, for a strictly scientific approach, for an unbiased examination of the data, and for conclusions warranted by the evidence.

A complete "psychograph," a scheme including every element of personality, is the ultimate goal of the individual psychologist in historical, as in laboratory, research. The apparently impossible task proposed must be performed if complete use is to be made of invaluable and available data. Margis'[1] *Hoffmann* presents a thoroughly scientific psychological study based upon an exhaustive research into all of the records and documents bearing upon the subject treated. Recent valuable contributions made by historiometers, of which Woods's *Heredity in Royalty* is the most conspicuous example, illustrate our first two propositions. (See page 22, above.) They furnish evidence of the possibility of deriving from historical data psychological laws which no other available material could furnish. According to their character they derive their facts from one or the other of two kinds of historical report: the exhaustive psychogram is based upon the more complete evidence furnished by documents and other original sources, the statistical studies are based on secondary matter.

3–4. *The legitimacy of historiometry as an exact science. The reliability and validity of historiometric methods.* The demonstration of our last two, and more difficult, propositions has been undertaken by Woods, who presents skilfully elaborated and carefully grounded evidence for the legitimacy of historiometry as an exact science and who gives striking evidence for the reliability of the method and for the validity of the results obtained:[2] "If we are to fathom historical causation by objective methods it is obligatory first to prove that history itself, as we commonly find it in the printed records, is a sufficiently valid account of what actually happened. Second, it is equally necessary to

[1] Margis *E. Th. Hoffmann.*

[2] Woods, "Histriometry as an Exact Science," *Science,* N.S., 33, 568–574.

find proof that the objective methods correctly deal with these facts. If the records themselves were very much at fault, so that the statements of historians were very far from ideal truth, or if the objective methods of collecting and analyzing these statements were subject to a large error (or if both of these forces were in play) then it would be difficult to find wherein the trouble lay. But if, on the contrary, it fortunately be that history as we find it is in its important statements a fair representation of the truth, and if the methods of historiometry which deal with these records are also sound, then it is not difficult to prove both propositions at the same time." Woods illustrates his proposition by establishing the validity of the method in the case of heredity in royalty. He does this by comparing results obtained from historical data with the non-historical criterion of the resemblance between blood relations. The historiometric coefficients of resemblance are found to agree with the anthropometric. If the truth were perverted or unobtainable by the method of historiometry, we should of course not find this agreement. The results of the "delicate and accurate measurements of the anthropometric laboratory" could not be matched by historical data if the latter were based on what extremists have denoted as "a pack of lies agreed upon."

Two further tests are reported by Woods which illustrate both the reliability of biographical material and the validity of the method of historiometry. In the first a standard historical biographical dictionary (Lippincott) is tried out against two lists of contemporaries: all three sources are checked in terms of a particular set of facts, namely, birthplaces of distinguished Americans. From each of the three works the number of distinguished persons born in the state of Massachusetts is computed, i.e., the total number of such persons of sufficient note to be included in each work. An index number representing the ratio of each of these totals to the state population is compared with a similar index for the whole United States. The ratio of the state index to the United States index represents the degree of eminence in the state. The three indices of eminence are found to agree, showing for Massachusetts 2.6 to 2.8 times the proportional eminence for the country at large. Simi-

larly, the indices for the state of Virginia are derived and compared. They agree in giving an index of eminence between .6 and .9 times that for the United States. The biographers gathered their data independently and from two different periods. The validity of their results is indicated by the internal agreement of the two groups of indices of eminence and the approximately equal deviation of these indices from the index for the whole country.

Woods's final test concerns the relative fame of Euripides and Sophocles. It depends on a comparison between the evidence furnished by encyclopedias and that given by expert modern critics, and a comparison of both with the opinions of the Athenians. "For every authority consulted the answer is the same—the proportionate ratio favors Sophocles." The adjective method (i.e., the weighing of adjectives pro and con) proves more adequate for such fine differences as the relative standing of any two individuals of eminence equal to those, who, according to Cattell's study, were not exceeded in genius by more than two hundred individuals in all ages.

The two examples illustrate both our propositions. They indicate that historical records furnish a basis sufficiently reliable for comparative study and that the method of historiometry is relatively exact. It is clear that, with the exception of mathematics, the sciences cannot obtain, nor do they require, absolute, but rather relative, accuracy. "All we ask is that the exactitude shall be sufficient for the practical needs of the problem in hand." Woods's findings indicate that in historiometry "a workable instrument has been obtained capable not only of dealing with questions as intricate as human nature and its attributes, but actually at the same time demonstrating the essential validity of the historical data on which are based the percentile grades, ratios, correlations, or other superstructure." He continues: "This latter conception is to me the most interesting side of the whole matter. It has usually been impossible to scientifically refute those critics who claim that the so-called facts of history are so uncertain and subject to so great an error and prejudice that it is unsafe to build conclusions upon them by statistical methods. They have not of course ever known that such was the case, nor have they ever had any

way of estimating how far the records of history, as they exist in standard works, encyclopedias, and biographical dictionaries, actually deviate from the absolute truth. It has been assumed, on the other hand, by those who have been engaged in grading historical characters, that the records represent a fair approximation towards the ideal truth. The human record which we call history stands somewhere between two extremes, somewhere between the quagmire of complete falsehood and the heights of perfect truth. It is possible as we go on to appreciate, with closer and closer accuracy, just what deviation from ideal truth any *great* set of historical records contains."

Psychometric or Historiometric Studies

Historiometry in practice consists of two phases: first, the psychographic phase—the measurement of a trait or traits of separate individuals or of the same individual at different times, i.e., an analysis of the individual structure as a whole; second, the comparative phase—the measurement of the relative weights of the trait or traits or of the total structure in the case of a number of individuals, i.e., a group or statistical study in which the psychographs serve as basic case studies.

The old intellectual pastime of comparing two great heroes, such as the most distinguished warriors or the founders of two religions, has become a legitimate scientific procedure. Ostwald[1] compares six scientists and differentiates a classical and a romantic type. Davenport[2] compares naval heroes, and finds a hyperkinetic and a hypokinetic type. Each of these studies consists of (1) a preliminary psychogram, an analysis of those traits which are evidence for the presence or absence of the character in question; (2) a comparison by descriptive or preferably statistical methods which bring out the presence or absence of the character trait and, if possible, its degree when present.

By the method of historiometry Candolle[3] determined

[1] Ostwald, *Grosse Männer.*

[2] Davenport, *Naval Officers.*

[3] Candolle, *Histoire des Sciences et des Savants.*

the inheritance of mental traits among scientists, Odin[1] discovered the geographic distribution of French *literati,* Ellis[2] contributed information in regard to the physical and mental traits of eminent men of Britain, and Clarke[3] gathered evidence on the nature and nurture of American men of letters. Cattell[4] has made extended researches on American men of science (to which Brimhall[5] has added a study of heredity) and has outlined a similar study of a group of 1,000 eminent men of history. Woods's[6] analysis of the inheritance of mental and moral traits in royalty is a contribution of great value and extraordinary interest. These studies concern measurements of the influence of heredity on the production of able persons, and of the influence of environment on the development of innate ability.

In conclusion, the method of approach to the study of the native ability of eminent men, employed in the present investigation, i.e., the application of mental-test standards to behavior and performance in childhood as reported in history and biography, furnishes, where reliable and sufficiently complete data are available, a means of determining the "brightness" of the youths who afterwards achieved eminence. A similar method appears equally applicable for the evaluation of other mental traits. Measurement by standardized methods, comparison with valid and reliable criteria, may be undertaken with the data of history as with those obtained from contemporary subjects in the laboratory. The historiometric results will undoubtedly be far less exact than the experimental, but they may throw light on the otherwise necessarily obscure problem of the early mental development of men and women of genius.

[1] Odin, *Genèse des Grands Hommes.*

[2] Ellis, *British Genius.*

[3] Clarke, *American Men of Letters.*

[4] Cattell, J. McKeen, "A Statistical Study of American Men of Science," *American Men of Science,* New York, Science Press, 1921, (Ed. 3).

[5] Brimhall, Dean R., *Family Resemblances among American Men of Science,* reprinted from the *American Naturalist,* 1923.

[6] Woods, *Mental and Moral Heredity in Royalty.*

CHAPTER III

SUBJECTS AND DATA

Introductory statement. Since the problem of the early mental development of great men cannot be approached directly, because of the lack of an objective criterion of greatness, it is approached indirectly through the study of eminent men, i.e., through a study of men whose greatness has been recognized. The subjects for a study of eminent men who are also great men should fulfill three essential requirements: (1) they should reach a standard of unquestioned eminence; (2) they should be as far as possible persons whose eminence was the result of unusual achievement and not a consequence of a fortuitous circumstance, such as the accident of birth; and (3) they must be persons for whom adequate records are available, i.e., records upon which reliable ratings of early mental ability may be based.

A serious question may be raised as to the satisfactory fulfillment of the first of the three requirements if the names are selected by a subjective method; of the second if the names of hereditary aristocrats are included, of the third if eminent men of ancient times are included. A careful and objective method may, however, to a considerable extent overcome the difficulties; and an attempt has been made to devise such a method for the present investigation.[1]

The selection of subjects. Group A. As it stands, Cattell's list of 1,000 men of unquestioned eminence[2] adequately meets the first requirement; and it includes several hundred subjects that meet the second and third as well. For the main study the names of 282 subjects (Group A) were secured by systematic elimination from Cattell's list of the less eligible individuals and a final arbitrary selection of

[1] It is not contended that any one of the three requirements has been absolutely met, although the aim has been to meet all of them as nearly as possible. More refined procedure could be devised that would consistently eliminate questionable cases; but for the purpose of this study a careful and impartial selection of names, not a faultless one, is essential, although the latter would certainly be desirable.

[2] See above, pages 18 f., for Cattell's method of selection.

the most eminent: the hereditary aristocracy and the nobility were omitted according to Ellis' scheme; eminent men born before 1450 were also omitted; and from the remaining names those beyond the 510th on the original list were stricken out. The remaining names include persons of a high degree of undoubted eminence who were eminent by achievement and (with the exception of eleven) whose early mental ability may be estimated. The exclusion from the final group of the eleven cases for whom no records are available can scarcely invalidate the results of the research. (Their names are included for reference with those of Group A in Table 12A, opposite page 60.)

Group B. A second group of 19 subjects used for preliminary study was made up of an available group of miscellaneous cases, selected, after a process of elimination of names had occurred in accordance with the three above-mentioned requirements, from *beyond* the 510th name in Cattell's list.

Group A (282 Cases)

Group A[1] represents the greatest eminence in the period which it covers, as measured by the criteria of our time. It probably does not include all the men whose eminence is equal to that of its least eminent member; but all whom it does include are unquestionably eminent, and among these are probably the 100 or perhaps the 200 whom everyone would rate among the most eminent of all. The group may be characterized by a classification of its members according to (*a*) the centuries to which they belonged; (*b*) their nationality; (*c*) the profession, interest, or field in which eminence was (primarily) achieved; (*d*) length of life; and (*e*) heredity or family standing.

(*a*) *Classification by century or half-century.* The verdict of biographical dictionaries represents the opinion of their age as to the relative eminence of men no longer living. The significance of the phenomena of recent years therefore tends in them to be overestimated by an error in perspective, while only the most extraordinary ability holds its place from earlier periods. An interesting question relates to the possibility of certain factors actually increasing from one

[1] See Table 12A (facing p. 60) for names of individuals included.

century to another the proportional number of persons of eminence other than royalty and the aristocracy; but a discussion of this question is not essential here. The distribution of geniuses born in the centuries and half-centuries from 1450 to 1850 seems to indicate primarily the selective action of passing time upon the "eminence" judgment. In the first hundred-year period, 1450 to 1549, there are 27 cases (9.5 per cent of the entire group); in the second period, 1550 to 1649, 58 cases (20.5 per cent); in the third period, 1650 to 1749, 79 cases (28 per cent); and in the fourth period, 1750 to 1849, 118 cases (42 per cent). Table 1 gives the distribution by half-centuries.

The distribution by centuries gives 17 (6.0 per cent) to the last half of the fifteenth; 36 (12.5 per cent) to the sixteenth; 55 (19.5 per cent) to the seventeenth; 143 (51.0 per cent) to the eighteenth; and 31 (11.0 per cent) to the first half of the nineteenth century.

TABLE 1

DISTRIBUTION OF 282 EMINENT MEN (GROUP A) BY HALF-CENTURIES*

Half-Century Periods	Eminent men	
	Frequency	Per cent
1450–1499	17	6.0
1500–1549	10	3.5
1550–1599	26	9.0
1600–1649	32	11.5
1650–1699	23	8.0
1700–1749	56	20.0
1750–1799	87	31.0
1800–1849	31	11.0
Total period 1450–1849	282	100.0

* The assignment to groups is on the basis of the date of birth.

(*b*) *Classification by nationality.* The number of eminent men from various nations included in Group A is by no means an index of eminence-productivity by nations; for the method of selection used by Cattell[1] gives an undue advantage to the French and English and only less so to the

[1] See above, pp. 18 f., and footnote 1, p. 19.

Germans and Americans. The results for the groups (see Table 2) indicate simply the actual constituency of Group A.[1]

(*c*) *Classification by the field, interest, or profession in which eminence was (primarily) achieved.* The members of Group A have been classified into ten subgroups according to the field in which eminence was (primarily) achieved.

TABLE 2

DISTRIBUTION OF 282 EMINENT MEN (GROUP A) BY NATIONALITY

Nationality	Eminent Men	
	Frequency	Per cent
English, Scotch, Irish	97	34.4
French	74	26.2
German, Austrian	41	14.6
Italian	23	8.2
American	19	6.7
Dutch	7	2.5
Swiss	7	2.5
Spanish	6	2.1
Swedish	3	1.1
Flemish	2	.7
Albanian	1	.4
Macedonian	1	.4
Venezuelan	1	.4
Total	282	100.2

According to the classification, arbitrarily adopted, each individual appears but once, however significant a contribution he may have made in a second field. Doubtless a number of the eminent persons included in the study would not have achieved distinction on the basis of their activity in a single field. These cases of versatility of interest invite further study which is not attempted at present.

It appears that a method of selection which excludes hereditary aristocrats reduces the proportion of statesmen and soldiers in the total number, thus increasing the relative size of the other subgroups. It also appears that the attain-

[1] Figure 2 (p. 58) presents graphically four nationality groups according to their IQ ratings.

ment of eminence, i.e., recognition, is largely dependent on the extent to which a man's contribution is available in written form. Hence, of two equally able persons, he who publishes most or is most written about will have the better chance of attaining eminence. On the other hand, the volume of writing is significant in this connection in the long run only in relation to the value of the contribution which it makes or describes.

TABLE 3

DISTRIBUTION OF 282 EMINENT MEN (GROUP A) ACCORDING TO THE FIELD IN WHICH EMINENCE WAS (PRIMARILY) ACHIEVED

Field		Eminent Men	
		Freq.	Per cent
1. Writers (PND)[a]			
Poets,	31	52	18.0
Novelists, Dramatists,	21		
2. Statesmen and Politicians		43	15.0
3. Writers (EHCS)[b]			
Essayists, Critics, Scholars,	31	43	15.0
Historians	12		
4. Scientists		39	14.0
5. Soldiers		27	10.0
6. Religious Leaders		23	8.0
7. Philosophers		22	8.0
8. Artists		13	5.0
9. Musicians		11	4.0
10. Revolutionary Statesmen		9	3.0
Total		282	100.0

[a] Writers (PND) include the authors whose fame rests chiefly on imaginative works, i.e., the poets, novelists, and dramatists.
[b] Writers (EHCS) include the essayists, historians, critics, and scholars.

(*d*) *Classification by length of life.* Other factors being equal, the man who lives longest will become the most eminent. The table of distribution shows that other factors are *not* equal.

It appears that eminent statesmen and, to a less extent, philosophers, scientists, writers (essayists, historians, critics, and scholars), and religious leaders are most likely to live long lives, or else, possibly, that a long life is a more pronounced factor in achieving eminence in their fields than in

others. Eminent writers (poets, novelists, dramatists), soldiers, artists, and, especially, musicians and revolutionary statesmen are not so long-lived. Either these do not require such a period of years in order to achieve eminence, or else (and this is probable in a few cases) their chances for eminence are increased by an early death and the particular circumstances surrounding it. The matter will bear investigation.

TABLE 4

DISTRIBUTION OF 282 EMINENT MEN (GROUP A) BY LENGTH OF LIFE AND BY (PRIMARY) FIELD OF ACHIEVEMENT

Group	Cases	Average length of life	Number who lived less than 50 years		Number who lived 80 years or more	
	Freq.	(Years)	Freq.	Per cent	Freq.	Per cent
1. Statesman	43	70.0	2	4.5	13	30.0
2. Philosophers	22	68.4	1	4.5	3	13.5
3. Scientists	39	68.0	2	5.5	5	13.0
4. Writers (EHCS)[a]	43	67.8	1	2.0	5	12.0
5. Religious Leaders	23	67.3	2	9.0	4	17.0
6. Writers (PND)[a]	52	63.7	9	17.5	9	17.5
7. Artists	13	62.8	2	15.5	1	8.0
8. Soldiers	27	62.6	5	18.5	2	7.5
9. Musicians	11	61.8	3	27.5	0	0.0
10. Revolutionary Statesmen	9	51.4	4	44.5	0	0.0
Total	282		31		42	
Average		65.8		11.0		14.5

[a] See footnotes to Table 3.

(*e*) *Heredity. Classification by paternal standing.* The occupational ratings of the fathers and the maternal grandfathers of the 282 cases in Group A, on the basis of the Taussig occupational classification,[1] are presented in Table 5.

Although sons of royalty and the aristocracy (above the rank of baronet) have been excluded unless eminence was in a field where the father's standing could scarcely have had influence, more than half of the members of Group A are

[1] The Taussig Scale is a five-point rating scheme for social-economic standing:

1. Professional
2. Semiprofessional and higher business
3. Lower business and skilled labor
4. Semiskilled labor
5. Unskilled labor

hereditary members of the highest social class, which is numerically and proportionally a very small part of the total population. Eighty per cent, or four-fifths, belong to the two upper classes. That social class and the opportunity which it affords are not alone responsible for the eminence of the members of Group A is indicated (1) by the fact that all members of the upper class having equal opportunity (e.g., other members of the families of these subjects) are not equally eminent, and (2) by the fact that one-fifth of the group is recruited from the three hard-handed groups.

TABLE 5

OCCUPATIONAL STATUS OF THE FATHERS AND MATERNAL GRANDFATHERS OF 282 EMINENT MEN (GROUP A)

Taussig rating and classification	Fathers		Maternal grandfathers		
	Freq.	Per cent	Freq.	Per cent of 282	Per cent of 184 reported
1. Professional and nobility	148	52.5	77	27.3	41.8
2. Semiprofessional, higher business, and gentry	81	28.7	65	23.0	35.3
3. Skilled workmen and lower business	37	13.1	35	12.4	19.1
4. Semiskilled	11	3.9	3	1.1	1.6
5. Unskilled	3	1.1	4	1.4	2.2
No record	2	0.7	98	34.7	—
Total	282	100.0	282	99.9	100.0

Data for rating the maternal grandfathers are less complete than those for rating the fathers. In general the data indicate slightly lower standing than appeared in the case of the latter. This result is probably due to defective data. Somewhat less than half (41.8 per cent) of the paternal grandfathers whose status reports have been found, belong to the highest social class. More than three-quarters belong to the two upper classes. Inspection of the records suggests that more complete information would raise the ratings.

GROUP B (19 CASES)

As Group B[1] was selected partly because of the availability of the cases, it is not in character strictly comparable

[1] See Table 12B (folded insert preceding p. 61) for names of individuals included.

to Group A. The fivefold classification has therefore no comparative significance; it is simply descriptive.

a) Of the 19 cases, 15 belong to the first half of the nineteenth century, three to the last half of the eighteenth, and one to the last half of the seventeenth.

b) Nine are English, six are American, one is French, and three are Danish.

c) The class of writers (PND) is the largest and includes seven cases. Statesmen and scientists each number four, soldiers two, and religious leaders and writers (EHCS) each one.

d) The average length of life is 62.7 years.

e) Of the fathers, five belong to Taussig Class 1, seven to Class 2, and seven to Class 3. A somewhat lower rating of occupational status is found for Group B than for Group A. The group is so small, however, that a detailed comparison with Group A would hardly be profitable.

Group C (100 Cases)

A subgroup of 100 of the subjects included in Group A has been selected for special study:[1] (1) the first 25 names on the list according to the rank order of eminence; (2) the six men most eminent in each of ten fields of achievement, and who were born after 1730 (if there were fewer than six in this period in any field the number was completed from cases belonging to an earlier time); (3) enough other most eminent persons born since 1730 to make up with (1) and (2) a total of 100. The method of selection brings together a group that is representative of all fields and for whom, in general, more data are available than for the average member of Group A.

Sources of Data

The historical records of 312[2] eminent men and women selected for study, whether contained in collections of letters, histories, biographical dictionaries, or other works, were carefully searched, in so far as they were available,

[1] Ratings on personality traits of members of Group C are discussed in Chapters VII and VIII.

[2] Group A, 282; Group B, 19; and 11 members discarded from Group A for lack of data.

for material which would throw light on early mental development.[1] As stated above, eleven cases were then discarded for lack of data. For each of the remaining 301 an individual case history was prepared from the material furnished by upward of 1,500 biographical sources.

These 301 case studies furnished the preliminary data for the present study. All of the findings reported are limited to the material they contain. The intelligence and other ratings were made from the evidence they present, which was examined in detail by each of the raters. A sample of these case studies, that of Schelling, is reproduced in full on pages 745 to 759. It illustrates the method employed in gathering the preliminary data, and furnishes an example of evidence upon which a fairly reliable rating of early mental ability may be based. The items entered in this sample study are characteristic of the kinds of material available in general.

Each of the 301[2] case studies covers the following points:

1. Name, dates, field, and number indicating rank order of eminence in Cattell's list of 1,000
2. Bibliography
3. Chronology
4. Ancestry and family
5. Development to age 26
6. Characterization
7. The basis for eminence

With reference to each point the most reliable information available was assembled. With each statement or documented item included under points 4, 5, 6, and 7, the source, i.e., the exact reference including name of work and page, was also recorded.

For the present study the data concerning points 4 and 5 are of greatest significance; the others serve as supplemen-

[1] Research was practically limited to volumes in the library of Stanford University, the library of the University of California, and the San Francisco Public Library. Five works were secured from the Harvard University Library. Besides the encyclopedias and biographical dictionaries, some 3,000 works were consulted.

[2] Abbreviated versions of the case studies presenting their most significant items are included in Part II. These little studies provide brief summaries of 4 (ancestry and family) and of 5 (development to age 26), also bibliographies of the more important references.

tary material or as a background. The data covering point 5 have been gathered with special care, and made just as complete as available sources permitted. The sources included, in a considerable number of the cases, some primary material, letters, compositions in prose and verse, copies of original records, etc. Every statement or record concerning the first sixteen years of each subject's life was included in the case study if it was believed to have bearing on the mental development, except in the case of a few individuals (e.g., Goethe or John Stuart Mill) where this procedure would have involved the transcribing of whole volumes, without adding materially to the evidence contained in well-selected portions. Whatever the language of the works consulted, the entries included in the case study were reproduced in English in order to present comparable material to the judges or raters.[1] It was the endeavor of the writer to present the material unbiased and uncolored by the biographers' or her own interpretation. Wherever possible, the point of view of one biographer was checked by that of another. In the few cases where the wealth of the material was in itself a cause for embarrassment, the basic biographies (of whose material other works were found to be more or less adequate renderings) were selected for detailed use. The standard American, English, French, German, and Italian encyclopedias and biographical dictionaries were consulted throughout the study. Doubtful or debated points were carefully evaluated. The writer is fully aware that mistakes and omissions have occurred in gathering the data and that in some cases the biographical accounts themselves are not as accurate as one could wish, but it is believed that in spite of the sources of error, the truth of the matter has not been essentially misrepresented.

The Character of the Data

Terman's[2] study of the IQ of Francis Galton illustrates the kind of material of psychological import available in a

[1] In the case of youthful productions by the subjects, the matter was transcribed in the original unless content was largely to be stressed and an adequate translation was at hand.

[2] Terman, Lewis M., "The Intelligence Quotient of Francis Galton in Childhood," *American Journal of Psychology*, Vol. 28, 1917, pp. 209–215.

biographical account of childhood. Of the two periods of youth which engage our attention, Terman, in Galton's case, examined the first only. However, the character of the items is not dissimilar for the two periods, and illustrations from the Galton study are typical for both. If a brief summary of Galton's career between the ages of 16 and 26 is appended to a review of Terman's data, the whole may be offered as an illustration of the material which historical documents present to the student of mental development. In the Galton records information is included with respect to (1) the earliest period of instruction, (2) the nature of the earliest learning, (3) the earliest productions, (4) the first reading, (5) the first mathematical performance, (6) typical precocious activities, (7) unusually intelligent applications of knowledge, (8) the recognition of similarities or differences, (9) the amount and character of the reading, (10) the character of various interests, (11) school standing and progress, (12) early maturity of attitude or judgment, (13) the tendency to discriminate, to generalize, or to theorize. To these may be added (14) family standing, which is, in the case of Galton, besides being well known, implicit in the report of the kind of school attended. The nature of the items under each head are briefly reviewed and illustrated in the following paragraphs:

I. *Childhood. Development to Age 17.*

(1) The earliest period of instruction.

"From early childhood Galton was under the instruction of his sister, Adèle, herself a mere child. She taught him his letters in play, and he could point to them all before he could speak. Adèle had a wonderful power of teaching and gaining attention without fatiguing. She taught herself Latin and Greek that she might teach him. She never had him learn by heart, but made him read his lesson, bit by bit, eight times over, when he could say it. He could repeat much of Scott's *Marmion,* and understood it all by the time he was 5."

(2) The nature of the earliest learning.

"Francis knew his capital letters by twelve months and both his alphabets by eighteen months; . . . he could read a little book, *Cobwebs to Catch Flies,* when 2½ years old, and could sign his name before 3 years."

(3) The earliest production.

Galton's mother assures us that the following letter preserved from her son's 4th year was written and spelled by Francis himself without assistance:

" 'My
dear
Uncle
we have
got Ducks. I know
a Nest. I mean
to make a
Feast.' "

A second letter gives further evidence as to Galton's early ability in composition and also contributes information under the following heads:

(4) The first reading
(5) The first mathematical performance
(6) Typical precocious activities.

The letter, written to his sister the day before his 5th birthday, runs as follows:

" 'My dear Adèle,

" 'I am 4 years old and I can read any English book. I can say all the Latin Substantives and Adjectives and active verbs besides 52 lines of Latin poetry. I can cast up any sum in addition and can multiply by 2, 3, 4, 5, 6, 7, 8, [9], 10, [11].

"I can also say the pence table. I read French a little and I know the clock.

Francis Galton,
Febuary 15, 1827.' "

Terman comments upon this letter as follows: "The only misspelling is in the date. The numbers 9 and 11 are bracketed above, because little Francis, evidently feeling that he had claimed too much, had scratched out one of these numbers with a knife and pasted some paper over the other!"

(7) Unusually intelligent applications of knowledge and
(8) The recognition of similarities or differences.

"The fact that Francis' reading at the age of 5 years was intelligent and not of the mechanical kind, is demonstrated by his ability at that age to offer quotations which would fit a given situation. For example, when he was 5 years old, a boy friend asked his advice as to what he ought to say in a letter to his father, who, it seems, was in danger of being shot for some political affair. Little Francis replied immediately from Walter Scott:

" 'And if I live to be a man,
My father's death revenged shall be.'

"Again at the age of 5, he was found holding a group of tormenting boys at arm's length, shouting meanwhile,

" 'Come one, come all. This rock shall fly
From its firm base, as soon as I.' "

(9) The amount and character of his reading.
"By 6, under the tutelage of Adèle, Galton had become thoroughly conversant with the *Iliad* and the *Odyssey*."

". . . He is 7 next February and reads *Marmion, The Lady of the Lake,* Cowper's, Pope's, and Shakespeare's works for pleasure, and, by reading a page twice over, repeats it by heart."

(10) The character of his interests other than reading.
"It seems that Adèle also taught Francis a good deal about entomology, and at 6 and 7 years he was active and persistent in collecting insects and minerals, which he is said to have classified and studied in more than a childish way. It has been shown . . . that collections of an analytical and classificatory type are not common before 12 or 13 years. Here, again, we find evidence of an intelligence quotient not far from 200."

"Francis' interests . . . were not wholly literary, for at the age of 13 he gave us 'Francis Galton's Aerostatic Project.' It seems this was a series of drawings representing a flying machine. It was to work by large, flapping wings with a sort of revolving steam engine, and was supposed to carry five passengers, a pilot, and an engineer."

(11) School standing and progress. "At the age of 8, Francis was taken away from home to attend a boarding school. Here he was placed in a high class, although the boys in it ranged up to 15 years. Since this was a private school attended by children of a superior social class, it is altogether likely that his 14- and 15-year-old classmates were themselves above the average mental level of that age; hence Francis must by this time have reached a mental level of not far from that which is median for 16 years. . . . At the age of 15 Francis was admitted to the general hospital at Birmingham as a medical student."

(12) Early maturity of moral attitude or judgment. "In his first year at [boarding] school, we find Francis writing to his father in these words: 'I am very glad that you have left off being a banker, for you will have more time to yourself and better health.' This little quotation certainly betokens a degree of filial solicitude by no means common to children of this age. Such altruism does not ordinarily develop so early. The words fit 16-year much better than 8-year intelligence." And again: "Francis from his earliest age showed highly honorable feelings. His temper, although hasty, brought no resentment, and his little irritations were soon calmed. His open-minded disposition, with great good nature and kindness to those boys younger than himself, made him beloved by all his school fellows. He was very affectionate and even sentimental in his manners. His activity of body could only be equalled by the activity of his mind. He was a boy never known to be idle. His habit was always to be doing something. He showed no vanity at his superiority over other boys, but said it was a shame that their education should have been so neglected."

(13) The tendency to discriminate, to generalize, or to theorize. "At the age of 15, we find the youth Galton expressing in his

letters to his father serious opinions on mind training, the relative value of classics and English, and other matters of educational theory. These opinions were voiced by him again some 60 years later, substantially without change."

(14) Family standing. The standing of the Galton family entitles any one of their number to an estimated IQ not lower than 120. This would doubtless be an underestimate of their average intelligence as it would be of the "brightness" of the children at the superior school which Francis Galton attended.

II. *Youth. Development from 17 to 26.* The material available in the records falls into three main groups: (1) academic progress and standing, (2) production, (3) professional standing and progress. In Galton's case the data may be summarized as follows:

(1) Academic progress and standing. At King's College for a brief period (aged 17) and at Cambridge for three years (18 to 21) Galton gave evidence of ability in science and mathematics. His interests were varied and spontaneous. The regular requirements irked him. The attempt to combine social, intellectual, and academic activities strained his health and brought about a condition in which, after winning in successive years a third, a second, and a fourth class rank, he was satisfied to graduate without competing for honors. He had, however, at an earlier period won some of the less important prizes.

(2) Production and achievement. Galton's active mind was constantly experimenting and producing; he wrote excellent verse and evolved curious and unique mechanical contrivances.

(3) Professional career and standing. Galton was active and successful as a surgeon's assistant at 16 and 17. At 22, on the death of his father, he became free to follow his own inclinations. This freedom released him from the bondage in which he had felt himself held, and for five years he gave expression to inclinations which had been repressed during the earlier period when he followed a career that was not of his choosing.

Terman has stated that the IQ of the child Galton could not be far from 200. The evidence offered by the achievement and the standing of various members of the family is corroborative. The report of the fallow period from 17 to 26 pictures a youth of superior ability, but of no phenomenal gifts. While on the evidence for the years from 17 to 26 we might not be justified in rating the young man above IQ 135, there is still in the account of this second period no contradiction to the evidence for his high IQ in childhood, and Galton's adult achievement suggests that the youthful display of capacity was not spurious.

The outline employed in the discussion above of Galton's case follows the scheme of the 301 case studies. When the

IQ is under discussion the material falls naturally under three heads: (1) family standing, (2) development to the age of 17, (3) development from 17 to 26. The abbreviated case studies in Part II are presented in this form.

When the items referring to the development have been reviewed and an intelligence rating has been recorded, we sometimes find a result in terms of an IQ which does not sufficiently account for the individual's later achievement. The question then arises: What other traits beside intelligence play a part in producing a man of great achievement?

The childhood records of men of eminence furnish information with respect to these other traits. Woods[1] finds that ratings based on historical reports of personality traits may be relied upon as not inaccurate measures of the elements of character. A schedule of intellectual, social, activity, and emotional traits has been used in our investigation which brings to light many of the contributory factors in personality that produce significant achievement, and which differentiate the youthful man of thought from the youthful man of action or the musician from the artist; and which at the same time underlie the characteristic differences between the whole group of youths who become eminent and the average youth of their day and ours.

Summary

For two groups of men and women of genius (Group A, 282 subjects; Group B, 19 subjects) biographical material has been assembled in so far as it contains evidence on (1) intelligence and (2) certain character traits as recorded for the early years. (A much abbreviated version of the most significant parts of this material is presented in Part II.) The results obtained from an evaluation of these data and the methods employed are described in succeeding chapters of Part I.

[1] Woods, "Historiometry as an Exact Science," *Science*, N.S., Vol. 33, pp. 568 ff.

CHAPTER IV

THE IQ ESTIMATE

The intelligence of our 301 men and women of genius has been rated on the evidence of their behavior and performance (1) in childhood and early youth (designated as AI IQ), and (2) in the first period of young manhood (designated as AII IQ). The ratings were made on the basis of the standards and norms for intelligent behavior established by mental tests. They are expressed in terms of the IQ (intelligence quotient), the ratio of mental age to chronological age.

The IQ is used here with a theoretical significance and without the limitation which, in testing practice, impairs its usefulness in the upper mental ages; i.e., the IQ is thought of as a constant measure which expresses the relative degree of "brightness" or intelligence of any given individual compared with a large unselected group in the same way that a sigma index would do. By using the term in this sense an IQ rating can be given to a youth over 16 ("adult" level) as readily as to one under that age, in so far as the value of his performance is known in terms of intelligence. It means that the individual rated with an IQ of x at any given age is classified by his behavior and assigned to the group whose members pass a Stanford-Binet test with a rating entitling them to an IQ of x at any given age for which the Stanford-Binet affords an adequate index of the IQ.

The raters have established, in terms of known standards correlating IQ and behavior or development, and in terms of their own considerable experience in mental testing, each his own individual "human rating scale of intelligence expressed in behavior"; and on the basis of these scales each has rated the evidence presented for the individual cases. To cite a simple example, in using the criterion of family standing, the group whose parents rate at 3 on the Taussig Scale[1] may, fairly, *if no other facts are regarded,* be considered entitled to an average IQ of 100; while the group

[1] See p. 36 and the footnote.

rating Taussig 2 is best rated, in the absence of other data, at IQ 110, and the group rating Taussig 1 at IQ 120. Again, in the case of school standing the best estimate of the IQ of a youth who does average work in an average lower school at the average age is 100, that for a youth who does superior work in a standard high school is 120, while the youth who does extraordinary work in a superior high school belongs to the select number whose IQ's are probably not less than 140. Other criteria, typical examples of which were enumerated in Chapter III where they were illustrated from Terman's analysis of Galton's IQ, are treated in detail in later chapters in connection with the results.

The 282 members of Group A and the 19 members of Group B have been rated for "brightness" measured in terms of the IQ.[1] Each youth in either group has received two IQ ratings: (1) the AI IQ, an average of three independent estimates of his intelligence as reported to his 17th birthday; and (2) the AII IQ, an average of three independent estimates of his intelligence as reported to his 26th birthday. Each "brightness" rating is accompanied by a reliability coefficient—a measure of the reliability, for estimating an IQ, of the data upon which the estimate is based.

As stated elsewhere, the ratings are estimated from the records as they stand. The *reported* John Stuart Mill receives an AI IQ of 190±4 and an AII IQ of 170±4, while the *reported* John Milton is scored at AI IQ 145±5 and AII IQ 170±4. This should not be interpreted to mean that the true score of Mill during his first seventeen years was 45 IQ points higher than that of Milton, nor that from the age of 17 to the age of 26 the two were just equally "bright." Nor is it intended to contribute to the important study of the constancy or inconstancy of the IQ; for the fluctuations reported are not indications of changes in the true IQ. Each of the various scores registers simply the *average IQ rating* of *all individuals* who do the things that are *recorded* of the given subject *at a particular age*. And all of the scores are

[1] The results upon which our main discussion of the IQ is based are the averages (AI IQ and AII IQ) of the estimates of the three raters, T, M, and C. These, with their means, S.D.'s and the reliability coefficients of the data obtained by the same raters, are entered in Tables 12A and 12B (Incomplete series of ratings by other raters are entered in the same tables, which are thus made complete records of all of the IQ estimates obtained in the course of the investigation.)

dependent on the experience and the interpretation of the judges who assign them.

If the IQ scores are then estimates of paper records only, how can they contribute to a study of the true mental level reached by great men in childhood? They can do so only approximately. In the present study results based on the paper records warrant at least two conclusions: (1) Because the second IQ average (AII IQ) is consistently higher than the first (AI IQ),[1] it appears that the AI ratings have been derived from regressed averages; i.e., from averages of groups to which by virtue of the items enumerated in the records our particular cases do belong, but in which, if further facts were available, they would be found always above the average. Hence, the obtained average IQ estimates for the whole group of 301, for the subgroups, and usually for the individual cases, may be accepted as far below the actual average intelligence in childhood of men and women of genius or, perhaps, as an indication of the probable lower limit of the entire group. (2) When the obtained average IQ estimates are corrected for the error indicated, which is due to the incompleteness of the records, the values obtained—the corrected estimates—indicate either the average of groups and subgroups or, perhaps better, a point below which the average does not fall.

The records alone, inadequate as they are, warrant an average IQ rating between 135 and 145 for the entire group, while a correction of the error in the estimates results in scores that indicate a true average for the group at a point not lower than 155 to 165 IQ.

Distribution of the Ratings in Group A

The two series of ratings[2] (AI and AII) follow similar curves, but the AII scores, based upon somewhat more complete records, indicate the error in the AI's which reduces them toward the mean for the generality (100 IQ).

[1] The case of Mill is a striking exception.

[2] The AI IQ in the case of members of Group A or the BI IQ in the case of members of Group B is an average of ratings of T, M, and C on records of development to age 17. The AII IQ (or BII IQ) an average of the three ratings for the development from age 17 to age 26. (See Chapter V.)

In Group A (282 cases) the mean AI IQ is 134.9 (average reliability coefficient of data, .46), with S.D. of 19.0; the mean AII IQ is 144.7 (average reliability coefficient of data, .53), with S.D. of 18.6. In Group B the mean BI IQ is 132.0 (average reliability coefficient of data, .50), with S.D. of 17.3; the mean BII IQ is 136.9 (average reliability coefficient of data, .53) with S.D. of 15.2.

Comparisons between the two series are presented in Table 6 and Table 7. In Table 6 the number of cases at each

TABLE 6

DISTRIBUTION OF CASE FREQUENCIES AND RELIABILITY COEFFICIENTS ACCORDING TO IQ ESTIMATES (AI IQ AND AII IQ)

By 5 IQ point intervals					By 20 IQ point intervals				
IQ	AI Freq.	AI Rel. coeff. of data	AII Freq.	AII Rel. coeff. of data	IQ	AI Freq.	AI Rel. coeff. of data	AII Freq.	AII Rel. coeff. of data
100	3	.22	–	–	100 to 115 incl.	43	.20	13	.16
105	10	.08	1	.11					
110	19	.22	4	.11					
115	11	.24	8	.19					
120	27	.26	15	.21	120 to 135 incl.	121	.38	78	.36
125	32	.34	13	.36					
130	21	.39	22	.36					
135	41	.48	28	.45					
140	28	.56	40	.52	140 to 155 incl.	91	.59	128	.59
145	30	.58	34	.58					
150	24	.68	30	.61					
155	9	.68	24	.67					
160	8	.71	20	.67	160 to 175 incl.	20	.72	54	.71
165	6	.67	14	.68					
170	3	.72	14	.76					
175	3	.82	6	.74					
180	3	.80	6	.78	180 to 200 incl.	7	.79	9	.78
185	3	.77	–	–					
190	1	.82	2	.75					
195	–	–	–	–					
200	–	–	1	.82					

The table should be read as follows: There are three individuals whose records for their first 17 years entitle them to an IQ of 100 only; the average reliability coefficient of the data upon which the ratings are based is .22; there are no cases whose records for the period from age 17 to age 26 entitle them to an IQ as low as 100.

IQ level is given for both the AI IQ's and the AII IQ's, with their respective average reliability measures. The results

where small groups are compared (distribution by 5 IQ point intervals), or where large groups are compared (distribution by 20 IQ point intervals), give the same indications. From both, it appears that AI IQ's and AII IQ's of any given level are based on data of approximately equal reliability, and that, in general, the higher the IQ the higher the reliability of the data.[1] In Table 7 the AI and the AII ratings

TABLE 7

DISTRIBUTION OF CASE FREQUENCIES BY AI IQ, AND COMPARISON OF THE AVERAGE AII IQ WITH THE AVERAGE AI IQ OF THE SAME CASES

Frequencies	AI IQ	Rel. coeff. of data	AII IQ	Rel. coeff. of data
3	100	.22	120	.32
10	105	.08	120	.23
19	110	.22	125	.29
11	115	.24	125	.37
27	120	.26	135	.44
32	125	.34	135	.44
21	130	.39	140	.47
41	135	.48	145	.56
28	140	.56	150	.63
30	145	.58	155	.63
24	150	.68	160	.72
9	155	.68	160	.72
8	160	.71	170	.72
6	165	.67	170	.62
3	170	.72	175	.75
3	175	.82	175	.80
3	180	.80	170	.77
3	185	.77	195	.77
1	190	.82	170	.82

The table should be read as follows: Three individuals whose AI IQ's are estimated at 100, upon data whose reliability coefficients average .22, have received an average estimated AII IQ of 120 from data whose reliability coefficients average .32.

of the same cases are compared: the AI IQ's are grouped at successive IQ levels from 100 to 190 inclusive and the average for the corresponding AII IQ's with the average of the reliability of the data are then computed and arranged in like order for comparison. The AII rating is higher than

[1] See Table 8 and Table 9 for the correspondence between height of IQ and reliability of data.

the AI for any given IQ group, and the AII is based on data having a higher reliability coefficient than the data from which the corresponding AI is estimated. Here again there is the same consistent relationship between IQ rating and the reliability of the data used.

Tables 8 and 9 give the distribution of the IQ ratings according to the reliability of the data upon which the ratings are based. They indicate the trend of the ratings, and show that the more reliable the data the higher the estimate of the IQ.[1] Of the 282 cases in Group A about 50 per cent (140 cases) afford data for the AI IQ estimate whose reliability is rated at .53 or above; for the AII IQ estimate about 60 per cent (178 cases) afford data of this degree of reliability.

Table 12A and Table 12B, facing page 60, present the actual IQ scores, estimated by each of the raters, and the average AI and AII IQ scores. These averages have been accepted as the best estimates of the *recorded* development. The actual AI IQ scores assigned by the three raters are plotted graphically with their averages in Figure 1. From the discussion above it appears that each score should be considered always in the light of the reliability of the data. A comparison of any given AI ratings (and their reliability coefficients) with the corresponding AII ratings (and their reliability coefficients) suggests that there is present a constant error affecting all of the scores which is due to the incompleteness of the historical records from which the ratings were made. A correction eliminating the factor introduced by the incompleteness of the records would raise all of the scores far above their present positions. The difficulties involved in making a true correction are very great. The estimation of the *true* IQ's from the IQ's rated upon the evidence of historical records is a problem requiring careful analysis. The correction attempted in the present report[2] is a crude approximation to such a *true* IQ: it indicates a point below which the *true* IQ probably did not fall. (See Chapter V.)

[1] This relationship between height of IQ estimate and reliability of data was entirely unexpected. Discovered only after all of the ratings had been tabulated, it threw an unlooked-for light on the significance of the findings.

[2] See pages 81 f.

TABLE 8

FREQUENCY DISTRIBUTION OF AI IQ RATINGS ACCORDING TO THE RELIABILITY OF THE DATA UPON WHICH THEY ARE BASED

	Reliability coefficients of data*																					
	.00		.11		.20		.43		.53		.60		.75		.82		.53 and above		Total			
AI IQ	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freqs.			
100			2				1										0		3			
105	3		5		1												0		9			
110	3	18	4	35	8	23	4	19			1	5					1	5	20			
115	1		5		1		3				1						1		11			
120	1		2		16		6		2								2		27			
125			1		13		14		2		2						4		32			
130		1	1	5	7	32	6	35	4	12	2	12	1	3			7	27	21			
135			2		3		16		6		11		3				20		41			
140					1		7		6		9		5				20		28			
145					1		2		8		14		5				27		30			
150						2	1	11	2	19	7	36	13	30	1	2	23	87	24			
155									1		3		4		1		9		9			
160									1		1		5		1		8		8			
165							1				2		1		2		5		6			
170								5		5	1	20	1	35	1	35	3	95	3			
175															3		3		3			
180													1		2		3		3			
185													2		1		3		3			
190														43	1	57	1	100	1			
195																			0			
200																			0			
Total freqs.	8		22		51		61		32		54		41		13		140		282			

(There are 142 cases for which the reliability of the data for rating the AI IQ is less than .53, and 140 cases for which it is .53 and above.)

* The derivation of these reliability coefficients is discussed on pages 73 ff.

TABLE 9

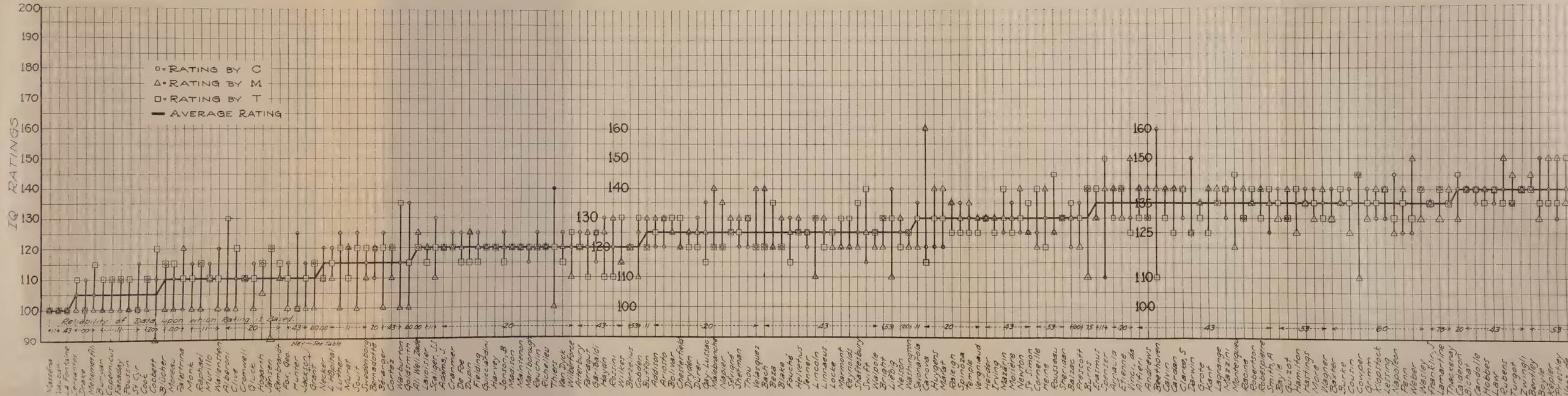
FREQUENCY DISTRIBUTION OF AII IQ RATINGS ACCORDING TO THE RELIABILITY OF THE DATA UPON WHICH THEY ARE BASED

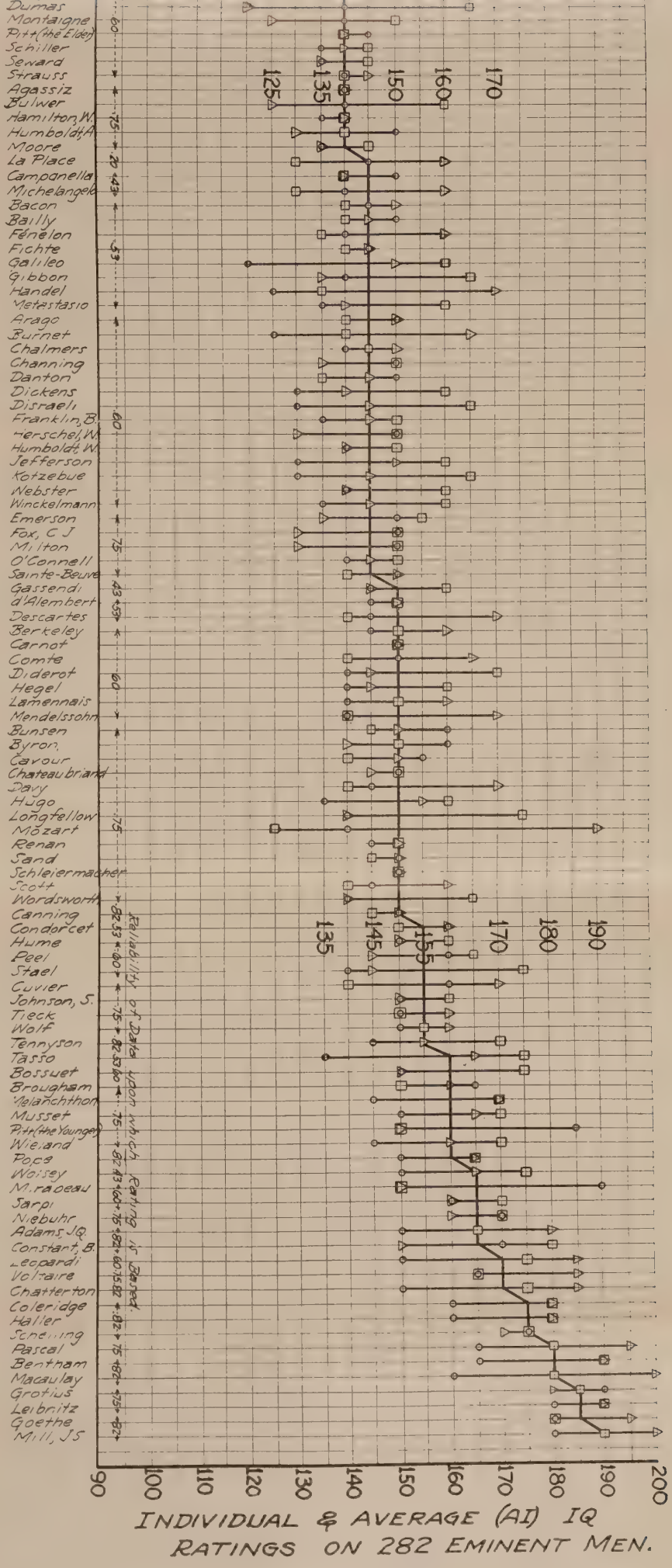
	Reliability coefficients of data																	
	.00		.11		.20		.43		.53		.60		.75		.82		.53 and above		Total
AII IQ	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freqs.
100																			
105			1														0		0
110			4	77		15						8					0		1
115			5		2						1						0	8	4
120			6		6		3										1		8
125			2		3		6		1				1						15
130			3	14	5	24	9	40	3	13	2	5		4			2		13
135					5		13		6		2		2				5	22	22
140			1		1		12		10		12		4				10		28
145					1		8		5		11		9				26		40
150				1	1	2	3	19	4	19	13	31	7	25	2	3	25		34
155							1		5		4		12		2		26	78	30
160							2		2		4		10		2		23		24
165			1								3		8		2		18		20
170				2		0		3.5		3.5	2	19	5	50	2		13		14
175											1		4		1	22	14	94.5	14
180													3		3		6		6
185																	6		6
190													2	56		44	2	100	2
195															1		1		1
200																			0
Total freqs.			23		24		57		36		55		67		20		178		282

(There are 104 cases for which the reliability of the data for rating the AII IQ is less than .53, and 178 cases for which it is .53 and above.)

FIGURE 1

INDIVIDUAL AND AVERAGE AI IQ RATINGS OF 282 YOUNG GENIUSES (GROUP A)





INDIVIDUAL & AVERAGE (AI) IQ RATINGS ON 282 EMINENT MEN.

The Relation of the IQ Estimate and the Rank Order of Eminence

The series of AII IQ estimates show a slight, positive correlation with the rank order of eminence:[1] $r = .25 \pm .038$. As has been shown in the discussion of Tables 7 to 9, a high IQ is usually associated with a high reliability. The question arises whether or not the positive correlation between rank order of eminence and IQ is due to the fact that more complete data are available for the more eminent subjects than for the less eminent. The correlation ($r = .16 \pm .039$) between AII IQ and rank order of eminence when reliability of data is constant (by the method of partial correlation) indicates that the more complete data for the more eminent individuals do increase the correlation. At the same time a positive correlation coefficient obtained even when the reliability of the data is constant is indicative of a very small but a positive correlation between eminence and IQ.

Certain other findings (Table 10) are in agreement with this conclusion: (1) The average AI IQ of a more eminent group called the First Ten[2] is 4 IQ points above the average AI IQ of a less eminent group called the Last Ten,[3] although both were rated on equally satisfactory data; it is 4 points above the average AI IQ of the 54 cases in Group A whose data have the same reliability coefficient. The AII IQ shows a difference of 12 points between the First Ten and the Last Ten; here the reliability of the data for the First Ten is definitely higher. (2) The First Fifty, the most eminent members of Group A, average above the Last Fifty, the least eminent members of Group A on both AI and AII. Allowing for a difference in IQ due to a difference in the reliability of the data, there appears to be a genuine additional IQ increment associated with "eminence."

That this increment is due to an actual correlation between IQ and eminence, and not to an overrating of the more

[1] The rank order of eminence is an index of position on Cattell's list; e. g., No. 1 occupies more space in biographical dictionaries than any other subject in Group A; No. 282 occupies less space than any other. The rank order of eminence is entered in Tables 12A and 12B in column 1.

[2] These are the first ten, i. e., the ten most eminent members, of Group C. (See pages 180 ff. and Table 43.)

[3] These are the last ten, i.e., the ten least eminent members, of the main body of Group C. (See pages 183 ff., and Table 43.)

eminent by the raters (the "halo factor"), is suggested if not proved by a comparison of certain other results: (1) The average rank order of eminence of the Highest IQ's[1] is 24.4; that of the First Ten 5.5; yet the difference between the AI IQ's is 29 points, and that between the AII IQ's is 23 points,

TABLE 10

COMPARISON OF AI AND AII RATINGS AND RELIABILITY COEFFICIENTS OF CERTAIN GROUPS

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Highest IQ's in Group C [a] (5 cases)	175	.75	185	.82
Control [c] (41 cases)	152	.75		
Lowest IQ's in Group C [a] (6 cases)	112	.20	122	.43
Control (51 cases)	122	.20		
First Ten in Group C [a]	146	.60	162	.75
Control (54 cases)	142	.60		
Last Ten in Group C [a]	142	.60	150	.60
Control (54 cases)	142	.60		
First Fifty in Group A [b]	142	.53	152	.60
Control (32 cases)	138	.53		
Last Fifty in Group A [b]	133	.43	142	.51
Control (69 cases)	129	.43		
Mean for Group A (282 cases)	135	.46	145	.53

[a] For the names of the subjects included see Table 43.
[b] The First Fifty are the 50 of greatest eminence in Group A, the Last Fifty, the 50 of least eminence.
[c] The "control" cases are in each instance all of the cases having the same reliability coefficient as the group with which they are compared.

in favor of the Highest IQ's. Again allowing for the more favorable conditions for the Highest IQ's (more reliable data) the difference appears to be significant. If we compare the average AI IQ of 41 unselected (control) cases with the Highest IQ's (reliability of data being constant), we find a difference of 23 points in favor of the latter, whereas the AI IQ's of the 54 cases of equal reliability with the First

[1] These are the members of Group C whose estimated IQ's are highest. (See Table 43.)

Ten are only 4 points below the average of the group with which they are compared. This apparently indicates that the raters have recognized the intelligence factor without reference to—or perhaps, in some cases, in spite of—the rank order of eminence. (2) The Last Ten and the Lowest IQ's[1] rank at approximately the same point with respect to eminence. The differences in AI and AII IQ are 30 points and 28 points, respectively. The comparison with the control group is of interest. The data for the Last Ten are more reliable (their IQ's are higher), but the difference in reliability between the data for them and for the Lowest IQ's is not sufficient to account for the difference in IQ. In this case, where eminence is equal, the differences in IQ are pronounced and doubtless significant.

In conclusion, it appears that there is a slight, positive correlation between IQ estimate and rank order of eminence. This correlation is due in part to the greater completeness of the data for the more eminent subjects, but it is due in greater part to an actual relationship between IQ and eminence even when the eminence range is limited to those whom Galton would call the "illustrious"; it is probably not due to the halo factor.

Nationality and the IQ

When the subjects are arranged in groups according to nationality (see Figure 2, p. 58, for four of these groups) we have the results given in Table 11. (See p. 59.)

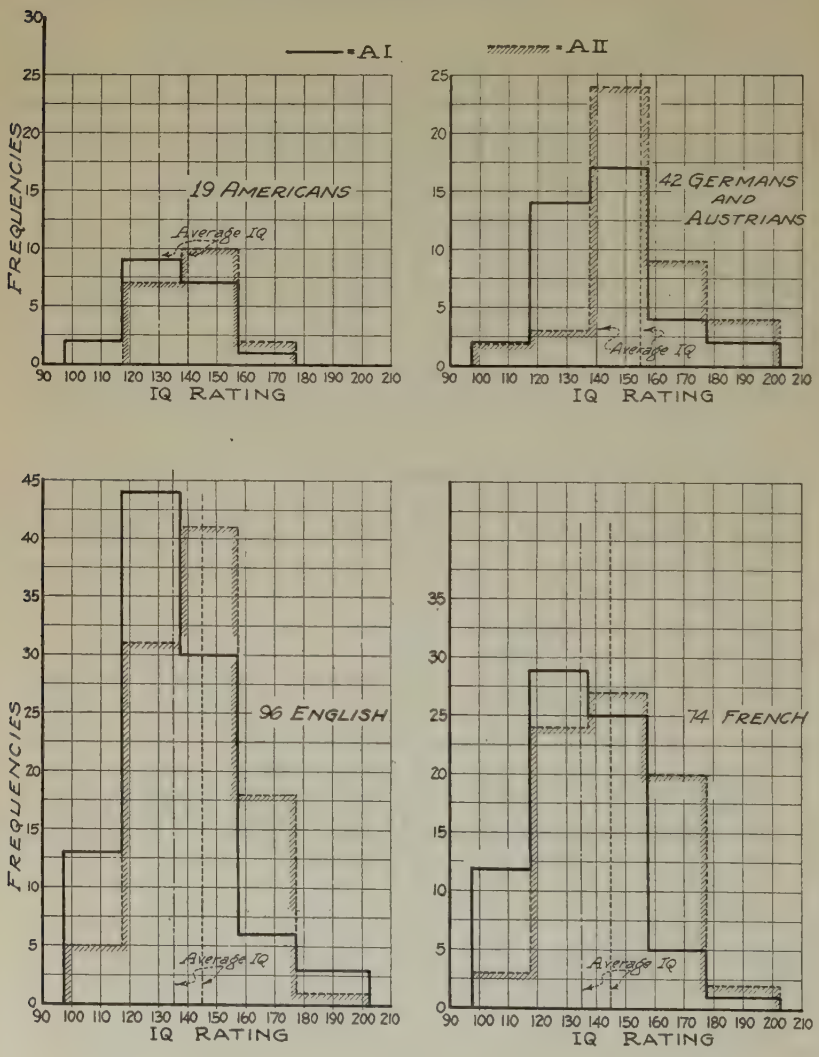
These results indicate the availability of material from various countries and perhaps throw some light on national habits in regard to keeping records.[2] They also give further evidence of relationship between IQ ratings of the groups

[1] These are the members of Group C whose estimated IQ's are lowest. (See Table 43.)

[2] Other factors also enter in to raise or lower the reliability coefficient of the data for different countries: (1) Sources other than those in English, French, and German were not used in the original except in a few cases. (2) The American group, being less remote both temporally and geographically, probably did afford more complete sources. With the other groups it should perhaps not be overlooked that most of the French case studies were assembled by one individual, all but two of the German cases by another. The American, English, and other nationality groups were contributed to by three investigators.

FIGURE 2

DISTRIBUTION OF AI AND AII IQ ESTIMATES OF 231 YOUNG GENIUSES GROUPED BY NATIONALITY



and reliability of the data. The data collected regarding Americans and Germans appear slightly more adequate for our purpose than those available for the English. Those for

TABLE 11

DISTRIBUTION OF 282 EMINENT MEN BY NATIONALITY, AND THE AVERAGE AI AND AII RATINGS BY NATIONALITY GROUPS

Freqs.	Nationality	AI	Rel. coeff.	AII	Rel. coeff.
19	Americans	133.1	.52	141.6	.64
42	Germans and Austrians	140.2	.54	152.6	.62
96	English, Scotch, and Irish	134.7	.49	143.1	.53
74	French	135.0	.44	151.3	.52
51	Other Nationalities	131.4	.34	132.8	.46
282	Total	134.9	.46	144.7	.54

the French are more adequate than mixed nationality records, but less complete than the American, German, and English material. National differences in "brightness" are not to be inferred from the figures in Table 11. Any comparison as to actual IQ differences between the groups representing various nationalities awaits a satisfactory method of equalizing the effect of the variation in the reliability of the data.

THE RELATION OF THE IQ TO THE FIELD OR PROFESSION IN WHICH EMINENCE WAS ACHIEVED

In Figure 3 the distribution (by IQ levels and in percentages of the whole group) of the AI and AII IQ's of the youths of Group A by fields are presented graphically. The figures upon which the graphs are based appear, with other material in Table 47. Within each field in which eminence was achieved the IQ's are compared with reference to their reliability. The average for the young Philosophers is higher for both the AI and the AII IQ's than the corresponding average of any other group. The Writers (EHCS) do not as nearly approach the Philosophers' AI score as the reliability of their records would seem to warrant, while the average of the Writers (PND), based upon more reliable records, is also lower. In the AII ratings the Philosophers score above the Scientists and the Writers (EHCS), on equally reliable

FIGURE 3

DISTRIBUTION OF AI AND AII IQ ESTIMATES OF 282 YOUNG GENIUSES GROUPED BY FIELD OF LATER ACHIEVEMENT

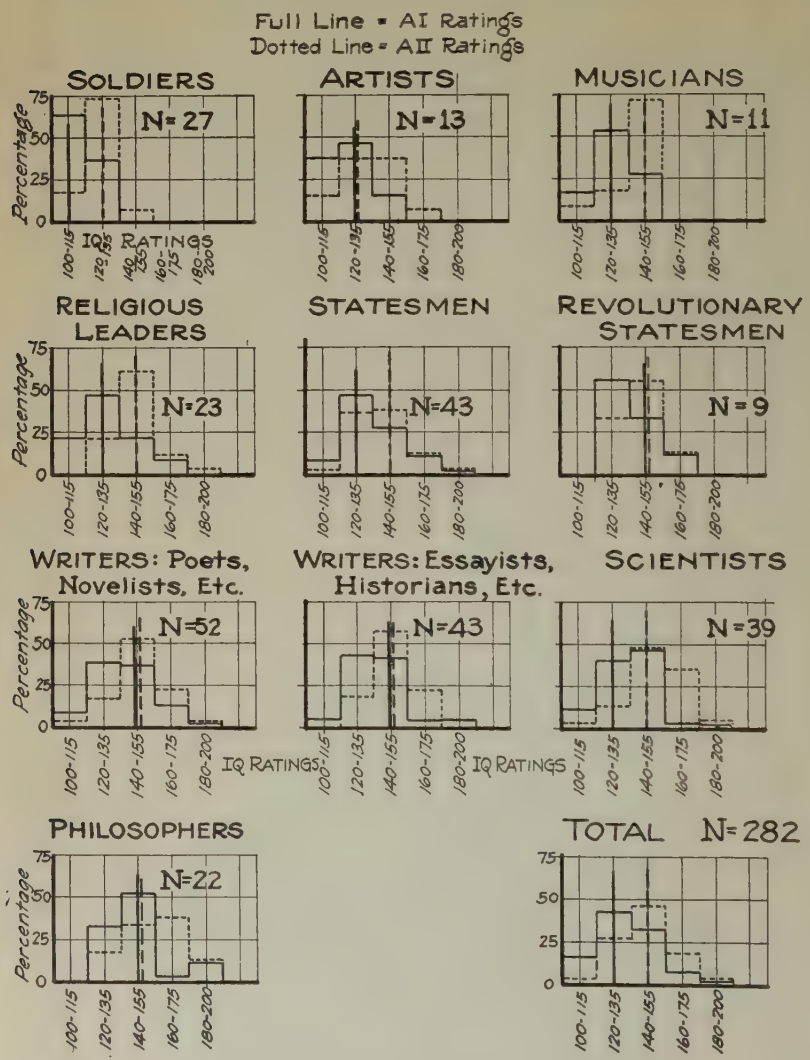


TABLE 12 A

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (GROUP A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings C Mn. 134.0 S.D. 16.4		M Mn. 134.7 S.D. 21.9		T Mn. 136.2 S.D. 19.4		G Mn. 126.6 S.D. 19.9		AII Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings C Mn. 143.4 S.D. 15.5		M Mn. 144.8 S.D. 22.7		T Mn. 145.7 S.D. 16.8		G Mn. 135.6 S.D. 20.7		St Mn. 155.5 S.D. 16.85	Corrected IQ estimate AI	AII	Name	Trait rating reliability coeff.
104	Adams, John	1735–1826	91	American	Statesman	Farmer (Owner)	Adams, J.	120 ± 9	6	.20	120	6	120	6	120	6	110	6	145 ± 5	3.5	.75	140	4	140	4	155	3	135	4	139	150	155	Adams, J.	—
274	Adams, John Quincy	1767–1848	81	American	Statesman	Lawyer, U. S. President	Adams, J. Q.	165 ± 4	3	.82	150	3	180	3	165	3	140	3	165 ± 4	3	.82	155	3	170	3	165	3	140	3	167	170	175	Adams, J. Q.	—
42	Addison, Joseph	1672–1719	47	English	Writer, EHCS	Clergyman	Addison	125 ± 9	6	.20	120	6	130	6	125	6	110	6	140 ± 7	5	.53	130	5	140	5	145	5	135	4	149	155	165	Addison	—
219	Agassiz, J. Louis	1807–1873	66	Swiss-American	Scientist	Clergyman and Teacher	*Agassiz	140 ± 5	4	.75	140	4	140	5	140	3	140	4	160 ± 5	4	.75	160	4	160	5	165	3	160	3	—	150	175	Agassiz	.56
83	Alberoni, Guilio	1664–1752	88	Italian	Statesman	Gardener	Alberoni	110 ± 9	6	.20	100	6	100	6	130	6.5	110	6	110 ±10	6.5	.11	105	6	100	7	130	6.5	110	6	155	140	145	Alberoni	—
123	Alfieri, Vittorio	1749–1803	54	Italian	Writer, PND	(Nobleman)	Alfieri	135 ± 8	5.5	.43	140	5	140	5	130	6	120	5	135 ± 7	5	.53	140	5	130	5	140	5	120	5	143	160	160	Alfieri	—
197	Ali Weli Zade	1741–1822	81	Albanian	Statesman	Robber Chief, District Ruler	Ali Weli Zade	120 ±17	7	.00	120	7	125	7	120	6.5	100	6	120 ±10	6.5	.11	120	7	125	7	120	6	100	6	145	155	155	Ali Weli Zade	—
246	Andrewes, Lancelot	1555–1626	71	English	Relig. Leader	Merchant	Andrewes	135 ± 8	5.5	.43	130	5	140	6	130	6	130	5	140 ± 7	4.5	.60	130	4	140	4	150	4	130	5	176	155	160	Andrewes	—
140	Arago, D. F.	1786–1853	67	French	Scientist	Lawyer	*Arago	145 ± 7	4.5	.60	150	5	150	5	140	4	125	5	165 ± 5	4	.75	165	4	170	4	150	4	165	4	169	160	180	Arago	.55
162	Ariosto, Ludovico	1474–1533	59	Italian	Writer, PND	Army Captain	Ariosto	125 ± 9	6	.20	120	6	130	6	130	6	110	6	135 ± 7	5	.53	130	5	140	5	140	5	120	5	137	160	160	Ariosto	—
254	Arnauld, Antoine	1612–1694	82	French	Philosopher	Lawyer	Arnauld	135 ± 9	6	.20	140	6	140	6	130	6.5	130	5	160 ± 8	5.5	.43	165	5	160	5	155	6.5	130	5	155	175	190	Arnauld	—
132	Atterbury, Francis	1662–1732	70	English	Relig. Leader	Clergyman	Atterbury	120 ± 8	5.5	.43	125	5	120	6	120	6	120	5	150 ± 7	4.5	.60	160	4	145	5	140	5	130	5	—	140	170	Atterbury	—
269	Bach, J. Sebastian	1685–1750	65	German	Musician	Musician	Bach	125 ± 8	5.5	.43	120	6	140	5	120	6	130	5	140 ± 8	5.5	.43	145	5	160	5	120	6	130	5	142	140	165	Bach	—
3	Bacon, Francis	1561–1626	65	English	Philosopher	Statesman	*Bacon	145 ± 7	5	.53	145	5	150	5	140	5	125	5	155 ± 7	5	.53	155	5	160	5	145	5	150	4	—	165	180	Bacon	.66
232	Bailly, J. S.	1736–1793	57	French	Scientist	Hered. Guard of King's Pictures	Bailly	145 ± 8	5.5	.43	150	5	145	5	140	6	100	6	160 ± 7	4.5	.60	165	4	160	5	150	5	130	5	140	165	180	Bailly	—
255	Balzac, Honoré de	1799–1850	51	French	Writer, PND	Author (of Peasant Descent)	Balzac	130 ± 7	4.5	.60	120	5	130	4	135	5	130	5	145 ± 5	3.5	.75	140	4	130	5	140	5	130	5	140	140	155	Balzac	—
214	Baxter, Richard	1615–1691	76	English	Relig. Leader	Freeholder	Baxter	135 ± 7	4.5	.60	140	4	130	5	130	5	120	5	135 ± 7	4.5	.60	140	5	140	5	145	5	130	5	—	150	155	Baxter	—
235	Bayle, Pierre	1647–1706	59	French	Writer, EHCS	Clergyman	Bayle	135 ± 7	5	.53	140	5	130	5	135	5	120	6	140 ± 7	5	.53	140	5	130	5	140	5	150	3	150	155	165	Bayle	—
179	Beaumarchais, Pierre A. C. de	1732–1799	67	French	Writer, PND	Watchmaker	Beaumarchais	140 ± 7	4.5	.60	150	5	130	4	135	5	125	4	145 ± 7	4.5	.60	160	5	130	4	140	5	150	3	150	155	165	Beaumarchais	—
121	Beethoven, Ludwig van	1770–1827	57	German	Musician	Musician	*Beethoven	135 ± 8	5.5	.43	160	5	140	5	110	6	120	6	140 ± 8	5.5	.43	160	5	140	5	125	6	120	6	152	150	165	Beethoven	.13
181	Bentham, Jeremy	1748–1832	84	English	Writer, EHCS	Lawyer	Bentham	180 ± 4	2.5	.82	165	3	190	2	190	2	160	4	170 ± 4	3	.82	165	3	160	3	180	3	160	4	200	185	180	Bentham	—
106	Bentley, Richard	1662–1742	80	English	Writer, EHCS	Yeoman (Owner)	Bentley	140 ± 7	5	.53	140	5	145	5	140	5	135	3	150 ± 7	4.5	.60	150	5	145	5	150	4	145	3	148	160	170	Bentley	—
178	Béranger, Pierre Jean de	1780–1857	77	French	Writer, PND	Bookkeeper	Béranger	115 ± 8	5.5	.43	125	6	100	5	120	6	110	5	130 ± 7	5	.53	140	5	110	5	135	3	120	3	147	140	155	Béranger	—
153	Berkeley, George	1685–1753	68	Irish	Philosopher	Customs officer	Berkeley	150 ± 7	4.5	.60	145	5	160	5	150	4	150	2	175 ± 5	3.5	.75	165	4	190	3	170	3	160	3	176	170	190	Berkeley	—
172	Bernadotte (Charles XIV)	1763–1844	81	French	Soldier	Lawyer	Bernadotte	115 ± 9	6	.20	110	6	120	6	120	6	105	6	120 ± 9	6	.20	120	6	120	6	120	6	105	6	135	125	140	Bernadotte	—
241	Berzelius, John Jacob	1779–1848	69	Swedish	Scientist	College Head	Berzelius	120 ± 7	5	.53	120	5	120	5	120	5	120	5	140 ± 7	4.5	.60	140	4	145	5	140	4	140	4	147	135	160	Berzelius	—
158	Beza, Théodore de	1519–1605	86	Swiss	Relig. Leader	Government Official	Beza	125 ± 8	5.5	.43	120	6	120	5	135	6	125	5	140 ± 8	5.5	.43	130	6	140	5	150	5	125	5	166	145	165	Beza	—
226	Bichat, Marie François	1771–1802	31	French	Scientist	Physician	Bichat	140 ± 8	5.5	.43	140	6	140	5	140	6	110	6	150 ± 7	5	.53	150	5	150	5	155	5	140	3	142	160	175	Bichat	—
257	Blake, Robert	1599–1657	58	English	Soldier	(Gentleman of Property)	Blake, R.	125 ± 8	5.5	.43	120	6	130	5	120	5.5	110	6	130 ± 9	6	.20	125	6	130	7	135	5	110	6	—	135	150	Blake, R.	—
192	Blücher, Gebhard L. von	1742–1819	77	German	Soldier	Army Captain (Gent. of Prop.)	Blücher	110 ±13	7	.00	115	7	100	7	115	7	100	7	125 ± 9	6	.20	130	6	120	6	130	6	110	6	125	125	145	Blücher	—
208	Boerhaave, Hermann	1668–1738	70	Dutch	Scientist	Clergyman	Boerhaave	140 ± 7	4.5	.60	140	5	140	5	135	4	130	5	150 ± 5	4	.75	145	4	160	4	145	4	150	4	—	155	165	Boerhaave	—
196	Bolivar, Simon	1783–1830	47	Venezuelan	Soldier	(Nobleman)	Bolivar	125 ± 9	6	.20	125	6	125	6	130	6.5	120	5	135 ± 9	6	.20	135	6	125	6	140	6	125	5	140	135	155	Bolivar	—
36	Bossuet, Jacques B.	1627–1704	77	French	Relig. Leader	Lawyer	Bossuet	160 ± 7	4.5	.60	150	5	150	5	175	4	150	4	160 ± 7	5	.53	150	5	150	5	175	5	160	3	180	150	180	Bossuet	—
199	Boyle, Robert	1626–1691	65	English	Scientist	Statesman	Boyle	140 ± 7	5	.53	150	5	130	5	135	5	145	5	140 ± 7	4.5	.60	150	5	130	4	140	5	145	5	176	155	160	Boyle	—
207	Bright, John	1811–1889	78	English	Statesman	Weaver, Mill Owner	Bright	125 ± 7	5	.53	130	5	120	5	130	5	110	5	130 ± 7	5	.53	135	5	120	5	135	5	120	5	—	140	150	Bright	—
114	Brougham, Henry P.	1778–1868	90	English	Statesman	(Son of Attorney)	*Brougham	160 ± 5	3.5	.75	165	4	160	4	150	3	150	4	170 ± 5	3.5	.75	170	3	175	4	170	3	170	4	168	170	180	Brougham	.41
112	Buffon, Comte de (G. L. Leclerc)	1707–1788	81	French	Scientist	Councillor	Buffon	125 ±10	6.5	.11	120	6	130	6	120	7	120	6	130 ±10	6.5	.11	130	6	130	7	135	6	120	6	142	155	175	Buffon	—
133	Bulwer-Lytton, Edward G.	1803–1873	70	English	Writer, PND	Army General	*Bulwer	140 ± 5	3.5	.75	140	3	125	3	160	4	130	4	145 ± 5	3.5	.75	140	3	135	3	160	4	130	4	178	150	155	Bulwer	.45
147	Bunsen, Christian K. J.	1791–1860	69	German	Writer, EHCS	Soldier	*Bunsen	150 ± 5	3.5	.75	160	4	150	3	145	4	125	5	165 ± 4	3	.82	170	3	165	3	155	3	160	3	170	160	175	Bunsen	.68
277	Bunyan, John	1628–1688	60	English	Writer, EHCS	Tinker	Bunyan	105 ±10	6.5	.11	100	6	100	7	110	6.5	100	6	120 ± 9	6	.20	110	6	120	6	125	6	100	6	131	140	160	Bunyan	—
6	Burke, Edmund	1729?–1797	68	English	Statesman	Lawyer	*Burke	135 ± 7	4.5	.60	135	4	135	5	140	5	—		150 ± 7	4.5	.60	150	4	135	4	170	5	—		—	150	165	Burke	.75
248	Burnet, Thomas	1643–1715	72	English	Writer, EHCS	Lawyer	Burnet	145 ± 7	4.5	.60	125	5	165	5	140	4	140	3	145 ± 7	4.5	.60	140	5	140	4	155	4	140	3	165	160	165	Burnet	—
55	Burns, Robert	1759–1796	37	Scotch	Writer, PND	Farmer (Renter)	*Burns	130 ± 5	3.5	.75	140	3	110	4	140	4	130	4	130 ± 7	4.5	.60	140	4	120	5	135	4	140	4	142	140	150	Burns	.49
16	Byron, Lord (George Gordon)	1788–1824	36	English	Writer, PND	Army Officer	*Byron	150 ± 5	3.5	.75	160	3	140	3	150	4	160	3	170 ± 4	3	.82	170	3	165	3	160	3	160	3	165	160	180	Byron	.51
195	Calderón, de la Barca, Pedro	1600–1681	81	Spanish	Writer, PND	Government Official	Calderón	140 ± 6	4	.20	140	6	130	6	146	6	110	6	140 ± 8	5.5	.43	150	6	130	6	145	5	110	6	160	175	170	Calderón	—
21	Calvin, John	1509–1564	55	French	Relig. Leader	Lawyer	*Calvin	135 ± 8	5.5	.43	140	5	140	5	130	6	—		150 ± 8	5.5	.43	155	5	165	5	135	6	135	4	147	155	175	Calvin	.72
—	Camoëns, Luiz Vaz de	(Insufficient or no data on early years)					Camoëns	—	—	—	—		—		—		—		—	—	—	—		—		—		—		—	—	—	Camoëns	—
253	Campanella, Tommaso	1568–1639	71	Italian	Philosopher	(Patriot)	Campanella	145 ± 8	5.5	.43	150	5	140	6	140	6	125	5	155 ± 8	5.5	.43	160	5	150	6	155	5	—		—	170	185	Campanella	—
263	Candolle, A. P. de	1778–1841	63	Swiss	Scientist	Government Official	Candolle	140 ± 8	5.5	.43	135	5	140	5	140	6	125	5	150 ± 7	4.5	.60	150	4	150	5	145	5	140	3	156	160	170	Candolle	—
117	Canning, George	1770–1827	57	English	Statesman	Lawyer	*Canning	150 ± 4	3	.82	150	3	150	3	145	3	150	3	155 ± 4	3	.82	155	3	150	3	160	3	160	4	165	155	165	Canning	.55

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27)

* Member of Group C also.

		1672-1694		
		1750-1807		
		1789-1793		
		1719-1805		
		1.71 1805	28	
		1806-1807	28	
96		1783-1830	47	
25		1827-1701	77	
109		1829-1897	67	
307		1811-1880	78	
114		1778-1808	90	
		1707-1783		
		1808-1873	76	
		1791-1860	69	
		1828-1888		
		1729?-1797	67	
21				
287				
117				

(1) (2) (3) (4)

TABLE 12 A—*Continued*

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (Group A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average relia-bility grade	Relia-bility coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings C Mn. 134.0 S.D. 16.4		M Mn. 134.7 S.D. 21.9		T Mn. 136.2 S.D. 19.4		G Mn. 126.6 S.D. 19.9		AII Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average relia-bility grade	Relia-bility coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings C Mn. 143.4 S.D. 15.5		M Mn. 144.8 S.D. 22.7		T Mn. 145.7 S.D. 16.8		G Mn. 135.6 S.D. 20.7		St Mn. 135.5 S.D. 16.85		Corrected IQ estimate AI	AII	Name	Trait rating relia-bility coeff.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
131	Canova, Antonio	1757–1822	65	Italian	Artist	Stonecutter	*Canova	130 ± 9	6	.20	120	6	160	5	115	7	—		140 ± 8	5.5	.43	135	5	160	5	125	7	—		—		150	160	Canova	.50
259	Cardan, Jerome	1501–1576	75	Italian	Scientist	Scholar	Cardan	135 ± 8	5.5	.43	140	5	140	5	125	6	100	6	155 ± 7	4.5	.60	140	4	180	4	140	5	125	5			155	175	Cardan	—
62	Carlyle, Thomas	1795–1881	86	Scotch	Writer, EHCS	Mason	*Carlyle	140 ± 7	4.5	.60	140	4	135	4	140	5	125	5	155 ± 5	4	.75	160	4	145	4	160	4	150	4	175		155	165	Carlyle	.79
194	Carnot, Lazare	1753–1823	70	French	Statesman	Lawyer	Carnot	150 ± 7	4.5	.60	150	5	150	5	150	4	130	5	150 ± 7	5	.53	150	5	150	5	150	5	140	5	155		165	170	Carnot	—
111	Cavour, Camillo B., Count di	1810–1861	51	Italian	Revol. Statesman	(Nobleman)	*Cavour	150 ± 5	4	.75	155	4	150	4	140	4	125	5	150 ± 4	3	.82	150	3	145	3	160	3	125	5	165		160	160	Cavour	.78
93	Cervantes, Miguel de	1547–1616	69	Spanish	Writer, PND	Practical Physician	Cervantes	105 ±11	7	.00	105	7	100	7	110	7	100	7	110 ±10	6.5	.11	115	7	100	7	120	6	100	7	135		145	155	Cervantes	—
167	Chalmers, Thomas	1780–1847	67	Scotch	Relig. Leader	Merchant	*Chalmers	145 ± 7	4.5	.60	140	5	150	4	145	5	135	5	150 ± 5	4	.75	150	4	160	4	165	4	150	4	145		160	170	Chalmers	.60
187	Channing, William E.	1780–1842	62	American	Relig. Leader	Lawyer	*Channing	145 ± 7	4.5	.60	150	4	135	5	150	4	140	4	150 ± 5	4	.75	155	4	135	4	165	4	140	4	—		160	160	Channing	.46
66	Chateaubriand, F. R. A., Vicomte de	1768–1848	80	French	Writer, PND	(Nobleman)	*Chateaubriand	150 ± 5	4	.75	150	4	145	4	150	4	130	5	150 ± 5	4	.75	150	4	145	4	150	4	140	4	160		160	160	Chateaubriand	.46
163	Chatterton, Thomas	1752–1770	18	English	Writer, PND	Clerk to Solicitor	*Chatterton	170 ± 4	3	.82	150	3	185	3	175	3	—		170 ± 5	3.5	.75	150	3	185	3	175	4	—		188		175	180	Chatterton	.83
279	Chesterfield, Earl of (P. D. Stanhope)	1694–1773	79	English	Writer, EHCS	(Nobleman)	Chesterfield	125 ± 9	6	.20	120	6	120	6	130	6	100	6	135 ± 7	5	.53	140	5	120	4	140	6	120	5	135		155	160	Chesterfield	—
186	Clarke, Samuel	1675–1729	54	English	Relig. Leader	(M. P.)	Clarke, S.	130 ± 8	5.5	.43	130	5	140	6	140	6	110	6	140 ± 7	5	.53	140	5	140	5	140	5	150	4	—		155	160	Clarke, S.	—
95	Clive, Robert	1725–1774	49	English	Soldier	Lawyer	Clive	110 ± 9	6	.20	110	6	100	6	120	6	110	6	120 ± 9	6	.20	120	6	110	6	135	6	120	5	—		120	140	Clive	—
231	Cobbett, William	1763?–1835	72	English	Writer, EHCS	Small Farmer	Cobbett	105 ± 9	6	.20	110	6	90	6	120	6	125	5	125 ± 8	5.5	.43	130	5	110	5	130	6	130	5	—		135	150	Cobbett	—
151	Cobden, Richard	1804–1865	61	English	Statesman	Farmer	*Cobden	120 ± 7	5	.53	125	4	110	6	130	5	—		120 ± 9	6	.20	125	6	110	6	130	6	—		—		—	—	Cobden	.57
—	Colbert, J. B.	(Insufficient	or no data	on early years)		Colbert	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Colbert	—
157	Coleridge, S. T.	1772–1834	62	English	Writer, PND	Clergyman	*Coleridge	175 ± 4	3	.82	160	3	180	3	180	3	150	4	165 ± 5	3.5	.75	160	3	160	3	170	4	150	4	—		180	175	Coleridge	.54
58	Comte, I. A.	1798–1857	59	French	Philosopher	Tax Receiver General	*Comte	150 ± 7	4.5	.60	150	4	165	4	140	5	120	5	170 ± 5	3.5	.75	165	3	180	3	165	4	140	5	—		170	185	Comte	.52
—	Condillac, Étienne B. de	(Insufficient	or no data	on early years)			Condillac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Condillac	—
161	Condorcet, Marq. de (M.J.A.N. Caritat)	1743–1794	51	French	Philosopher	Army Captain	Condorcet	155± 7	5	.53	160	5	160	5	150	5	145	4	165 ± 5	4	.75	160	4	160	4	170	4	160	3	—		175	180	Condorcet	—
211	Constant, de Rebecque, H. B.	1767–1830	63	French	Statesman	Army Lieut.-Colonel	Constant	165 ± 4	3	.82	170	3	150	3	180	2.5	180	3	160 ± 5	3.5	.75	160	4	150	4	170	3	150	6	165		170	170	Constant	—
109	Cook, James	1728–1779	51	English	Scientist	Head Laborer	Cook, J.	105 ± 9	6	.20	110	6	100	6	110	6.5	110	6	115 ±10	6.5	.11	120	6	100	7	120	6	120	5	—		135	160	Cook, J.	—
191	Copernicus, Nicolas	1473–1543	70	Prussian	Scientist	Physician, Merchant, etc.	Copernicus	105 ±10	6.5	.11	110	6	100	7	110	7	—		130 ± 8	5.5	.43	130	5	125	6	135	6	125	5	—		135	160	Copernicus	—
70	Corneille, Pierre	1606–1684	78	French	Writer, PND	Lawyer	Corneille	130 ± 7	5	.53	125	5	120	6	140	4	125	5	140 ± 7	4.5	.60	140	5	120	5	155	4	—		—		150	160	Corneille	—
120	Cortez, Hernando	1485–1547	62	Spanish	Soldier	Army Captain	Cortez	115 ± 8	5.5	.43	120	6	110	5	120	6	100	5	120 ± 9	6	.20	125	6	110	6	120	6	100	5	125		125	140	Cortez	—
59	Cousin, Victor	1792–1867	75	French	Philosopher	Workingman	*Cousin	135 ± 7	4.5	.60	140	5	125	5	135	4	130	4	165 ± 5	4	.75	170	4	150	5	175	3	150	3	—		155	180	Cousin	.72
260	Cowper, William	1731–1800	69	English	Writer, PND	Clergyman	Cowper	135 ± 7	4.5	.60	145	4	110	5	145	4	125	5	140 ± 7	4.5	.60	145	4	125	5	145	4	125	5	—		150	160	Cowper	—
156	Cranmer, Thomas	1489–1556	67	English	Relig. Leader	(Gentleman)	Cranmer	120 ± 9	6	.20	125	6	120	6	120	6	110	6	130 ± 9	6	.20	130	6	120	6	135	6	110	6	—		145	165	Cranmer	—
17	Cromwell, Oliver	1599–1659	60	English	Soldier	(M. P., Country Gentleman)	*Cromwell	110 ± 9	6	.20	110	6	110	6	110	6.5	115	6	115 ± 9	6	.20	110	6	120	6	120	6.5	115	6	—		120	135	Cromwell	.31
60	Cuvier, Georges L.	1769–1832	63	French	Scientist	Distinguished Military Man	*Cuvier	155 ± 5	4	.75	160	4	170	4	140	4	160	4	160 ± 5	4	.75	165	4	160	5	170	4	170	4	176		165	175	Cuvier	.64
71	D'Alembert, J. P. le R.	1717–1783	66	French	Scientist	Military Commander	D'Alembert	150 ± 7	5	.53	145	5	150	5	150	5	140	5	165 ± 7	4.5	.60	165	4	160	5	170	4	170	4	—		165	185	D'Alembert	—
166	Danton, Georges J.	1759–1794	35	French	Revol. Statesman	Lawyer	*Danton	145 ± 7	4.5	.60	150	4	145	4	135	5	130	5	145 ± 5	3.5	.75	150	3	145	4	145	4	140	4	—		160	155	Danton	.58
68	Darwin, Charles R.	1809–1882	73	English	Scientist	Physician	*Darwin	135 ± 8	5.5	.43	150	5	125	5	125	6	—		140 ± 7	5	.53	150	5	135	5	140	5	—		—		155	165	Darwin	.34
115	Davy, Humphry	1778–1829	71 or		Scientist	Miner, Farmer, etc.	*Davy	150 ± 5	3.5	.75	145	4	170	3	140	4	150	5	175 ± 4	2.5	.82	155	3	190	3	175	2	175	3	—		160	185	Davy	.60
148	De Foe, Daniel	1659 or	72	English	Writer, PND	Butcher	De Foe	120 ± 9	6	.20	125	6	120	6	115	6	125	5	125 ± 9	6	.20	135	6	120	6	125	6	125	5	—		155	165	De Foe	—
12	Descartes, René	1660–1731	54	French	Philosopher	Councillor	*Descartes	150 ± 7	5	.53	145	6	170	5	140	4	—		160 ± 7	4.5	.60	160	5	170	5	150	4	—		—		170	180	Descartes	.44
86	Dickens, Charles	1596–1650	58	English	Writer, PND	Clerk, Reporter, etc.	*Dickens	145 ± 7	4.5	.60	130	4	140	5	160	5	—		155 ± 7	5	.53	145	4	165	5	150	6	—		—		160	180	Dickens	.39
97	Diderot, Denis	1812–1870	71	French	Writer, EHCS	Cutler	Diderot	150 ± 7	4.5	.60	140	5	145	5	170	3	140	5	145 ± 7	4.5	.60	140	5	145	5	155	4	140	5	—		165	165	Diderot	—
81	Disraeli, Benjamin	1804–1881	77	English	Statesman	Writer	*Disraeli	145 ± 7	4.5	.60	130	5	145	5	165	4	—		150 ± 7	4.5	.60	140	5	145	5	165	4	—		—		160	165	Disraeli	.24
182	Drake, Francis	1545?–1596	51	English	Soldier	Sailor, Clergyman	Drake	105 ±11	7	.00	110	7	100	7	100	7	100	7	110 ±10	6.5	.11	120	6	100	7	115	6	110	6	—		120	130	Drake	—
82	Dryden, John	1631–1700	69	English	Writer, PND	(Country Gentleman, J. P.)	Dryden	125 ± 9	6	.20	125	6	125	6	120	6.5	115	6	130 ± 8	5.5	.43	135	6	125	6	135	5	115	6	—		160	160	Dryden	—
252	Dumas, Alexandre (Père)	1802–1870	68	French	Writer, PND	Army General	Dumas, A.	140 ± 7	4.5	.60	140	4	120	5	165	4	145	5	150 ± 7	4.5	.60	145	4	135	5	165	4	145	5	—		155	170	Dumas, A.	—
271	Dupin, A. M. J. J.	1783–1865	82	French	Statesman	Lawyer	Dupin	120 ± 9	6	.20	125	6	125	6	115	6	120	5	140 ± 7	5	.53	150	5	145	5	125	5	140	4	—		150	160	Dupin	—
89	Dürer, Albrecht	1471–1528	57	German	Artist	Goldsmith	Dürer	125 ± 9	6	.20	130	5	125	6	120	6.5	115	6	135 ± 8	5.5	.43	140	5	135	6	125	6	115	6	—		145	155	Dürer	—
233	Emerson, Ralph Waldo	1803–1882	79	American	Writer, EHCS	Clergyman	Emerson	145 ± 5	3.5	.75	150	4	135	3	155	3	140	4	145 ± 5	3.5	.75	140	4	135	4	155	3	140	4	—		155	155	Emerson	—
31	Erasmus, Desiderius	1467?–1536	69	Dutch	Relig. Leader	Monk	Erasmus	135 ±10	6.5	.11	130	7	130	6	140	6	130	5	140 ±10	6.5	.11	145	6	130	7	140	6	130	5	—		165	180	Erasmus	—
129	Étienne, Charles G.	1778–1845	67	French	Writer, PND	Tradesman (?)	*Étienne	135 ± 9	6	.20	140	6	130	6	140	6	—		140 ± 7	4.5	.60	150	5	130	5	145	4	—		—		170	160	Étienne	.21
184	Faraday, Michael	1791–1867	76	English	Scientist	Blacksmith	Faraday	105 ±10	6.5	.11	110	6	100	6	110	6.5	100	6	150 ± 7	4.5	.60	145	4	160	5	145	4	150	4	—		135	170	Faraday	—
273	Farragut, David G.	1801–1870	69	American	Soldier	Army Major, Farmer	Farragut	120 ± 8	5.5	.43	120	5	125	5	110	6.5	120	5	120 ± 8	5.5	.43	120	5	125	5	120	6.5	120	5	—		130	135	Farragut	—
61	Fénelon, François	1651–1715	64	French	Relig. Leader	(Gentleman)	Fénelon	145 ± 7	5	.53	140	5	160	5	135	5	140	5	145 ± 9	6	.20	140	6	160	6	135	6	140	5	—		160	180	Fénelon	—
85	Fichte, Johann G.	1762–1814	52	German	Philosopher	Linen Maker	*Fichte	145 ± 7	5	.53	145	5	145	5	140	5	160	5	155 ± 5	4	.75	150	4	155	4	155	4	160	5	—		165	170	Fichte	.71

* Member of Group C also.

(1)	(2)	(3)	(4)	(5)

TABLE 12 A—*Continued*

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (Group A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings: C Mn. 134.0 S.D. 16.4	M Mn. 134.7 S.D. 21.9	T Mn. 136.2 S.D. 19.4	G Mn. 126.6 S.D. 19.9	AII Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings: C Mn. 143.4 S.D. 15.5	M Mn. 144.8 S.D. 22.7	T Mn. 145.7 S.D. 16.8	G Mn. 135.6 S.D. 20.7	S: Mn. 155.5 S.D. 16.85	Corrected IQ estimate: AI	AII	Name	Trait rating reliability coeff.
136	Fielding, Henry	1707–1754	47	English	Writer, PND	Army Lieut.-General	Fielding	120 ± 9	6	.20	125 6	120 6	115 6	105 6	135 ± 8	5.5	.43	140 5	130 6	130 5	120 3	—	155	165	Fielding	—
141	Fouché, Joseph	1759?–1820	61	French	Revol. Statesman	Merchant, Captain	*Fouché	125 ± 8	5.5	.43	130 5	125 5	115 7	—	130 ± 9	6	.20	135 6	135 5	125 6.5	—	—	150	165	Fouché	.18
43.5	Fox, Charles James	1749–1806	57	English	Statesman	Statesman	*Fox, C. J.	145 ± 5	4	.75	150 4	130 4	150 4	125 5	145 ± 5	4	.75	150 4	130 4	160 4	125 5	—	155	155	Fox, C. J.	.54
43.5	Fox, George	1624–1690	66	English	Relig. Leader	Weaver	Fox, George	110 ± 8	5.5	.43	115 6	100 5	110 6	100 6	120 ± 9	6	.20	125 6	115 6	120 6	100 6	—	130	155	Fox, George	—
25	Franklin, Benjamin	1706–1790	84	American	Statesman	Tradesman	*Franklin, B.	145 ± 7	4.5	.60	135 4	145 5	150 4	140 5	145 ± 7	4.5	.60	145 4	145 5	150 4	140 5	—	160	160	Franklin, B.	.54
251	Franklin, John	1786–1847	61	English	Scientist	Banker, Freeholder	Franklin, J.	135 ± 5	4	.75	135 4	135 4	135 4	120 4	135 ± 5	4	.75	135 4	135 4	135 4	120 4	—	145	150	Franklin, J.	—
26	Galileo Galilei	1564–1642	78	Italian	Scientist	Business Man	Galileo	145 ± 7	5	.53	120 5	150 5	160 5	125 5	165 ± 7	4.5	.60	140 5	185 4	170 5	175 4	—	160	185	Galileo	—
127	Garibaldi, Giuseppe	1807–1882	75	Italian	Soldier	Merchant, Captain	*Garibaldi	120 ± 8	5.5	.43	115 6	125 5	125 6	—	125 ± 8	5.5	.43	125 5	125 5	125 6	—	—	130	140	Garibaldi	.63
119	Gassendi, Pierre	1592–1655	63	French	Scientist	Laborer	Gassendi	150 ± 8	5.5	.43	145 5	145 5	160 6	—	160 ± 7	5	.53	150 5	165 5	160 5	—	—	170	185	Gassendi	—
134	Gay-Lussac, J. L.	1778–1850	72	French	Scientist	Lawyer	*Gay-Lussac	125 ± 9	6	.20	135 6	125 6	115 6	115 5	155 ± 7	4.5	.60	160 5	165 5	140 4	155 4	—	155	175	Gay-Lussac	.69
34	Gibbon, Edward	1737–1794	57	English	Writer, EHCS	(M.P., Country Gentleman)	*Gibbon	145 ± 7	5	.53	140 5	135 5	165 5	—	155 ± 7	5	.53	150 5	145 5	165 5	—	—	165	180	Gibbon	.56
275	Gluck, Christopher	1714–1787	73	German	Musician	Forester	Gluck	110 ± 9	6	.20	115 6	100 6	110 6.5	110 6	115 ± 9	6	.20	125 6	110 6	110 6.5	110 6	—	135	145	Gluck	—
4	Goethe, J. W.	1749–1832	83	German	Writer, PND	Councillor	*Goethe	185 ± 4	3	.82	180 3	195 3	180 3	—	200 ± 4	3	.82	200 3	225 3	180 3	—	—	190	210	Goethe	.76
113	Goldsmith, Oliver	1728–1774	46	English	Writer, PND	Clergyman, Farmer	Goldsmith	115 ± 7	4.5	.60	135 4	100 5	115 5	110 5	115 ± 7	4.5	.60	135 4	100 5	115 5	110 5	—	130	135	Goldsmith	—
67	Grant, U. S.	1822–1885	63	American	Soldier	Tanner, Mayor	*Grant	110 ± 7	4.5	.60	115 5	100 4	115 5	—	125 ± 5	3.5	.75	125 4	120 3	135 4	—	—	115	130	Grant	.61
278	Grimm, Jakob L.	1785–1863	78	German	Writer, EHCS	Lawyer	Grimm, J. L.	135 ± 7	4.5	.60	140 4	130 5	135 5	130 5	140 ± 7	4.5	.60	150 4	130 5	135 5	140 4	—	150	160	Grimm, J. L.	—
276	Grote, George	1794–1871	77	English	Writer, EHCS	Banker	Grote	135 ± 8	5.5	.43	135 5	135 5	120 6	125 5	140 ± 7	4.5	.60	145 4	135 4	140 6	135 4	—	155	160	Grote	—
72	Grotius, Hugo	1583–1645	62	Dutch	Statesman	High City Official	Grotius	165 ± 5	3.5	.75	190 4	180 4	185 2	180 3	190 ± 5	3.5	.75	200 4	190 4	185 2	180 3	—	195	200	Grotius	—
240	Guicciardini, Francesco	1483–1540	57	Italian	Writer, EHCS	Lawyer, Army Officer	Guicciardini	120 ± 9	6	.20	120 6	120 6	120 6.5	115 6	140 ± 8	5.5	.43	145 5	135 6	140 5	130 5	—	150	165	Guicciardini	—
33	Guizot, François P. G.	1787–1874	87	French	Writer, EHCS	Lawyer	*Guizot	135 ± 7	5	.53	130 4	140 5	130 6	130 5	155 ± 5	4	.75	150 3	150 5	160 4	160 3	—	155	165	Guizot	.53
137	Haller, Albrecht	1708–1777	69	Swiss	Scientist	Civil Officer	Haller	175 ± 4	3	.82	160 3	180 3	180 3	175 5	180 ± 4	3	.82	170 3	190 3	180 3	175 5	—	180	190	Haller	—
118	Hamilton, Alexander	1757–1804	47	American	Statesman	Merchant	*Hamilton, A.	135 ± 7	5	.53	135 4	125 5	140 6	120 5	140 ± 7	4.5	.60	150 4	125 5	150 5	160 3	—	150	155	Hamilton, A.	.51
205	Hamilton, William	1788–1856	68	Scotch	Philosopher	University Professor	Hamilton, W.	147 ± 5	4	.75	135 4	140 4	140 4	—	160 ± 4	3	.82	155 3	165 3	160 3	—	—	150	170	Hamilton, W.	—
142	Handel, George F.	1685–1759	74	German	Musician	Barber-Surg.	Handel	145 ± 7	5	.53	125 5	170 4	135 6	160 4	155 ± 7	4.5	.60	140 4	185 4	140 5	160 4	—	160	170	Handel	—
124	Harvey, William	1578–1657	79	English	Scientist	Y'm, Mayor	Harvey	120 ± 9	6	.20	120 6	120 6	120 6	120 6	150 ± 8	5.5	.43	165 5	150 6	135 5	130 5	—	150	180	Harvey	—
149	Hastings, Warren	1732–1818	86	English	Statesman	Clergyman	Hastings	135 ± 7	5	.53	140 5	135 5	135 5	130 5	140 ± 8	5.5	.43	145 5	135 5	135 6	130 5	—	150	165	Hastings	—
168	Haydn, Joseph	1732–1809	77	Austrian	Musician	Wheelwright	*Haydn	120 ± 8	5.5	.43	130 5	125 5	110 6	—	140 ± 7	5	.53	140 4	145 5	130 6	—	—	135	160	Haydn	.26
29	Hegel, G. W. F.	1770–1831	61	German	Philosopher	Fiscal Officer	*Hegel	150 ± 7	4.5	.60	140 5	145 4	160 4	145 5	145 ± 7	4.5	.60	140 4	150 4	150 5	145 5	—	170	165	Hegel	.42
198	Heine, Heinrich	1797?–1856	59	German	Writer, PND	Business Man	Heine	130 ± 7	5	.53	130 5	140 4	120 6	110 5	145 ± 7	4.5	.60	150 4	140 4	150 5	120 3	—	150	165	Heine	—
262	Helvetius, C. A.	1715–1771	56	French	Writer, EHCS	Physician, Scientist	Helvetius	125 ± 8	5.5	.43	125 6	130 5	125 6	120 5	135 ± 8	5.5	.43	140 6	130 5	140 6	120 5	—	145	160	Helvetius	—
145	Herder, J. G.	1744–1803	59	German	Writer, EHCS	Weaver, Teacher	Herder	130 ± 8	5.5	.43	130 5	130 5	130 6	130 5	155 ± 5	4	.75	155 4	165 4	150 4	150 4	—	150	165	Herder	—
47	Herschel, William	1738–1822	84	German	Scientist	Army Band Musician	*Herschel, W.	145 ± 7	4.5	.60	150 4	130 5	150 5	—	140 ± 7	5	.53	150 4	130 5	140 6	—	—	160	165	Herschel, W.	.81
37	Hobbes, Thomas	1588–1679	91	English	Philosopher	Clergyman	Hobbes	140 ± 8	5.5	.43	140 5	140 5	135 6	150 5	135 ± 8	5.5	.43	140 5	130 5	135 6	150 5	—	165	165	Hobbes	—
225	Hogarth, William	1697–1764	67	English	Artist	Teacher	*Hogarth	110 ±10	6.5	.11	115 6	105 6	115 7	—	115 ±10	6.5	.11	120 6	105 6	115 7	—	—	150	165	Hogarth	.54
80	Hugo, Victor	1802–1885	83	French	Writer, PND	General	*Hugo	135 ± 5	3.5	.75	135 3	155 3	160 5	—	170 ± 4	3	.82	145 3	185 3	175 3	—	—	160	180	Hugo	.43
57	Humboldt, Alexander von	1769–1859	90	German	Scientist	{ Soldier and }	*Humboldt, A.	140 ± 5	4	.75	150 4	130 3	140 5	—	170 ± 5	3.5	.75	185 3	165 3	160 5	—	—	150	185	Humboldt, A.	.57
215	Humboldt, Wilhelm von	1767–1835	68	German	Writer, EHCS	{ Statesman }	Humboldt, W.	145 ± 7	4.5	.60	140 4	140 5	150 4	120 5	165 ± 5	4	.75	150 4	170 5	175 3	120 5	—	160	175	Humboldt, W.	—
32	Hume, David	1711–1776	65	Scotch	Philosopher	Lawyer	Hume	155 ± 7	4.5	.60	150 4	150 5	160 4	110 6	160 ± 7	4.5	.60	165 4	150 5	170 4	140 4	—	175	180	Hume	—
79	Hunter, John	1728–1793	65	English	Scientist	Freeholder	Hunter	110 ± 8	5.5	.43	125 5	100 5	100 6	90 6	130 ± 8	5.5	.43	135 5	130 5	130 6	120 6	—	130	160	Hunter	—
170	Huygens, Christian	1629–1695	66	Dutch	Scientist	Poet, Diplomat	Huygens	130 ± 9	6	.20	120 6	140 6	130 6	110 6	150 ± 7	5	.53	155 5	150 5	150 5	150 3	—	160	175	Huygens	—
209	Irving, Washington	1783–1859	76	American	Writer, EHCS	Tradesman	Irving, W.	130 ± 8	5.5	.43	130 5	130 5	125 6	110 5	145 ± 8	5.5	.43	150 5	140 5	140 6	120 3	—	150	170	Irving, W.	—
130	Jackson, Andrew	1767–1845	78	American	Soldier	Frontiersman	*Jackson, A.	110 ± 8	5.5	.43	115 5	100 5	110 6.5	100 6	130 ± 8	5.5	.43	135 5	130 5	125 6	100 6	—	120	145	Jackson, A.	.60
222	Jansen, Cornelis	1585–1638	53	Dutch	Relig. Leader	Peasant	Jansen	110 ± 9	6	.20	120 5	90 7	120 6.5	90 6	140 ± 7	5	.53	150 4	140 6	135 5	140 5	—	135	160	Jansen	—
49	Jefferson, Thomas	1743–1826	83	American	Statesman	Colonel, Mgr. of his Estate	*Jefferson	145 ± 7	4.5	.60	130 5	150 4	160 4	125 5	150 ± 5	4	.75	145 4	150 4	150 4	150 4	—	160	160	Jefferson	.75
216	Jenner, Edward	1749–1823	74	English	Scientist	Clergyman	Jenner	125 ± 8	5.5	.43	120 5	125 6	125 6	110 6	145 ± 7	4.5	.60	135 4	155 4	140 5	130 6	—	145	165	Jenner	—
27	Johnson, Samuel	1709–1784	75	English	Writer, EHCS	Bookseller	Johnson	155 ± 5	4	.75	150 3	150 5	160 4	120 5	155 ± 5	4	.75	155 3	150 5	160 4	130 5	—	165	165	Johnson	—
116	Jonson, Ben	1573–1637	64	English	Writer, PND	Clergyman	Jonson, B.	120 ± 9	6	.20	125 6	120 6	115 6	110 6	145 ± 8	5.5	.43	145 5	145 6	140 5	130 4	—	155	175	Jonson, B.	—
18	Kant, Immanuel	1724–1804	80	German	Philosopher	Strapmaker	*Kant	135 ± 8	5.5	.43	140 4	140 6	125 6	120 4	145 ± 8	5.5	.43	150 4	140 7	140 5	130 4	—	160	175	Kant	.43
90	Kepler, Johann	1571–1630	59	German	Scientist	Soldier, etc.	Kepler	140 ± 7	5	.53	140 5	150 5	135 5	130 5	160 ± 5	4	.75	160 4	165 4	155 4	170 3	—	155	175	Kepler	—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)

* Member of Group C also.

TABLE 12 A—*Continued*

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (Group A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings C Mn. 134.0 S.D. 16.4		M Mn. 134.7 S.D. 21.9		T Mn. 136.2 S.D. 19.4		G Mn. 126.6 S.D. 19.9		All Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings C Mn. 143.4 S.D. 15.5		M Mn. 144.8 S.D. 22.7		T Mn. 145.7 S.D. 16.8		G Mn. 135.6 S.D. 20.7		St Mn. 155.5 S.D. 16.85	Corrected IQ estimate AI	All	Name	Trait rating reliability coeff.
173	Klopstock, F. G.	1724–1803	79	German	Writer, PND	Lawyer	Klopstock	135 ± 7	4.5	.60	130	4	140	5	135	4	100	5	155 ± 5	4	.75	155	4	165	4	140	4	140	3	—	150	165	Klopstock	—
—	Knox, John	(Insufficient	or no data	on early years)			Knox, J.	—	—	—	—		—		—		—		—	—	—	—		—		—		—		—	—	—	Knox, J.	—
268	Kotzebue, August von	1761–1819	58	German	Writer, PND	Couns. of Legation	Kotzebue	145 ± 7	4.5	.60	130	5	145	4	165	4	170	5	150 ± 7	4.5	.60	145	5	145	4	165	4	170	5	—	160	170	Kotzebue	—
91	La Fontaine, Jean de	1621–1695	74	French	Writer, PND	Government Official, etc.	La Fontaine	100 ± 8	5.5	.43	100	6	100	5	100	6	110	6	125 ± 8	5.5	.43	125	6	125	5	120	6	115	6	—	125	155	La Fontaine	—
144	Lagrange, J. L., Comte	1736–1813	77	French	Scientist	Treas. at War	Lagrange	135 ± 8	5.5	.43	135	6	140	4	135	6	125	6	165 ± 7	4.5	.60	160	5	185	5	155	4	170	4	—	155	185	Lagrange	—
75	Lamartine, Alphonse de	1790–1869	79	French	Writer, PND	Scholar and Soldier	*Lamartine	135 ± 5	3.5	.75	140	3	130	4	140	4	130	5	150 ± 4	3	.82	155	3	130	3	160	3	145	4	—	145	160	Lamartine	.56
150	Lamennais, F. R. de	1782–1854	72	French	Writer, EHCS	Merchant	*Lamennais	150 ± 7	4.5	.60	140	5	160	5	150	4	160	5	155 ± 7	4.5	.60	150	5	160	5	150	4	160	5	—	165	175	Lamennais	.74
126	Laplace, Pierre Simon	1749–1827	78	French	Scientist	Laborer	*Laplace	145 ± 9	6	.20	145	6	160	6	130	6	140	5	170 ± 7	4.5	.60	165	5	185	5	160	4	160	3	—	175	190	Laplace	.56
223	Lavoisier, A. L.	1743–1794	51	French	Scientist	Lawyer	Lavoisier	120 ±10	6.5	.11	120	6	120	7	115	7	110	6	150 ± 7	4.5	.60	155	4	150	5	145	4	170	3	—	150	170	Lavoisier	—
154	Law, John	1671–1729	58	Scotch	Statesman	Goldsmith (Banker)	Law	140 ± 8	5.5	.43	135	5	140	5	140	6	120	6	140 ± 8	5.5	.43	140	5	140	5	140	6	120	6	—	160	165	Law	—
19	Leibnitz, G. W.	1646–1716	70	German	Philosopher	Jurist, Univ. Professor	*Leibnitz	185 ± 5	3.5	.75	180	3	190	4	190	3	180	5	190 ± 5	3.5	.75	190	3	190	4	190	3	180	5	—	195	205	Leibnitz	.66
280	Leopardi, Giacomo	1798–1837	39	Italian	Writer, PND	(Nobleman)	Leopardi	170 ± 7	4.5	.60	150	4	185	4	175	5	—		175 ± 5	3.5	.75	165	4	185	3	180	4	—		—	185	185	Leopardi	—
—	Le Sage, A. R.	(Insufficient	or no data	on early years)			Le Sage	—	—	—	—		—		—		—		—	—	—	—		—		—		—		—	—	—	Le Sage	—
84	Lessing, G. E.	1729–1781	52	German	Writer, PND	Clergyman	Lessing	135 ± 7	4.5	.60	130	4	140	5	140	4	125	3	150 ± 5	3.5	.75	145	4	150	4	155	3	150	3	—	150	160	Lessing	—
238	L'Hôpital, Michel de	1505–1573	68	French	Statesman	Physician and Councillor	L'Hôpital	115 ±10	6.5	.11	120	6	110	7	115	7	110	6	135 ± 8	5.5	.43	140	6	130	6	130	5	110	6	—	145	160	L'Hôpital	—
217	Liebig, Justus	1803–1873	70	German	Scientist	Merchant	*Liebig	125 ± 7	5	.53	140	4	110	6	130	5	—		165 ± 5	4	.75	160	4	185	4	145	4	—		—	140	180	Liebig	.56
23	Lincoln, Abraham	1809–1865	56	American	Statesman	Farmer	*Lincoln	125 ± 8	5.5	.43	130	5	110	5	130	6	—		140 ± 6	4	.75	145	4	140	3	140	5	—		—	145	150	Lincoln	.32
73	Linnæus, Carolus	1707–1778	71	Swedish	Scientist	Clergyman	Linnæus	125 ± 8	5.5	.43	125	5	130	6	120	6	115	5	145 ± 7	4.5	.60	140	5	145	5	145	4	175	3	—	145	165	Linnæus	—
20	Locke, John	1632–1704	72	English	Philosopher	Lawyer	*Locke	125 ± 8	5.5	.43	125	5	120	6	125	6	115	6	135 ± 8	5.5	.43	140	5	130	6	140	5	125	6	—	150	165	Locke	.53
169	Longfellow, H. W.	1807–1882	75	American	Writer, PND	Lawyer	Longfellow	150 ± 5	3.5	.75	140	4	140	4	175	3	165	4	160 ± 5	3.5	.75	150	4	150	4	175	3	165	4	—	160	170	Longfellow	—
—	Loyola, Ignatius	(Insufficient	or no data	on early years)			Loyola	—	—	—	—		—		—		—		—	—	—	—		—		—		—		—	—	—	Loyola	—
5	Luther, Martin	1483–1546	63	German	Relig. Leader	Peasant and Miner	*Luther	115 ±10	6.5	.11	125	6	100	7	120	6	110	5	145 ± 8	5.5	.43	135	6	160	5	135	5	120	4	—	145	170	Luther	.45
53	Macaulay, Thomas	1800–1859	59	English	Writer, EHCS	Business Man	*Macaulay	180 ± 4	3	.82	160	4	200	2	180	3	—		165 ± 5	3.5	.75	160	4	160	4	180	3	—		—	185	175	Macaulay	.40
—	Machiavelli, Niccolò	(Insufficient	or no data	on early years)			Machiavelli	—	—	—	—		—		—		—		—	—	—	—		—		—		—		—	—	—	Machiavelli	—
270	Madison, James	1751–1836	85	American	Statesman	Planter	Madison	120 ± 9	6	.20	120	6	120	6	120	6.5	100	7	135 ± 8	5.5	.43	135	4	130	6	135	6	115	3	—	150	160	Madison	—
155	Maintenon, Mme. de (F. d'Aubigné)	1635–1719	84	French	Statesman	(Gentleman)	Maintenon	120 ± 9	6	.20	120	6	120	6	120	6	110	6	130 ± 8	5.5	.43	125	6	130	6	140	5	130	3	—	150	155	Maintenon	—
165	Malebranche, Nicolas	1638–1715	77	French	Philosopher	Farm Treasurer	Malebranche	125 ± 9	6	.20	120	6	140	6	120	6	120	5	135 ± 9	6	.20	130	6	140	6	130	6	130	5	—	165	180	Malebranche	—
239	Marat, Jean Paul	1743–1793	50	French	Revol. Statesman	(Physician?)	Marat	130 ± 9	6	.20	120	6	140	6	130	6	110	5	130 ±10	6.5	.11	125	6	140	7	130	6	120	5	—	160	170	Marat	—
108	Marlborough, Duke of (J. Churchill)	1650–1722	72	English	Soldier	Statesman, Writer	Marlborough	120 ± 9	6	.20	115	6	120	6	120	6	110	6	125 ± 9	6	.20	115	6	120	6	135	6	110	6	—	130	145	Marlborough	—
101	Marmont, A. F. L.	1774–1852	78	French	Soldier	Army Captain	*Marmont	125 ± 8	5.5	.43	120	5	120	6	130	6	110	6	135 ± 8	5.5	.43	140	5	120	6	140	6	120	5	—	135	150	Marmont	.67
210	Masséna, André	1758–1817	59	French	Soldier		Masséna	100 ±10	6.5	.11	100	6	100	7	100	7	100	7	105 ±10	6.5	.11	110	6	100	7	100	7	110	6	—	115	125	Masséna	—
69	Mazarin, Jules	1602–1661	59	Italian	Statesman	Chamberlain	Mazarin	130 ± 8	5.5	.43	125	6	130	5	140	5	120	6	135 ± 8	5.5	.43	125	6	140	5	140	5	120	6	—	150	160	Mazarin	—
160	Mazzini, Giuseppe	1805–1872	67	Italian	Revol. Statesman	Physician, etc.	*Mazzini	135 ± 8	5.5	.43	130	5	140	5	140	6	115	6	145 ± 7	5	.53	135	5	140	5	155	5	135	5	—	160	165	Mazzini	.53
220	Mehemet Ali	1769–1849	80	Macedonian	Statesman	Farmer and Fisherman	Mehemet Ali	105 ±11	7	.00	105	7	100	7	115	6.5	100	5	110 ±10	6.5	.11	120	6	100	7	115	6.5	100	5	—	140	145	Mehemet Ali	—
77	Melanchthon, Philipp	1497–1560	63	German	Relig. Leader	Armorer	Melanchthon	160 ± 5	4	.75	145	4	170	4	170	4	175	4	180 ± 5	3.5	.75	165	3	190	4	180	3	200	3	—	170	190	Melanchthon	—
230	Mendelssohn, Felix	1809–1847	38	German	Musician	Merchant	Mendelssohn	150 ± 7	4.5	.60	140	5	170	4	140	5	150	4	155 ± 5	4	.75	150	4	180	4	140	4	150	4	—	160	165	Mendelssohn	—
237	Metastasio (P. A. D. B. Trapassi)	1698–1782	84	Italian	Writer, PND	Soldier, Tradesman	Metastasio	145 ± 7	5	.53	135	5	140	6	160	4	170	4	145 ± 7	5	.53	145	5	140	5	150	5	170	4	—	165	170	Metastasio	—
15	Michelangelo	1475–1564	89	Italian	Artist	(Gentleman)	*Michelangelo	145 ± 8	5.5	.43	140	5	160	6	130	6	110	6	160 ± 8	5.5	.43	150	5	190	6	140	6	120	4	—	160	180	Michelangelo	.55
103	Mill, John Stuart	1806–1873	67	English	Philosopher	Business Man, Writer	*Mill, J. S.	190 ± 4	2.5	.82	180	3	200	2	190	2	180	3	170 ± 4	3	.82	170	3	160	4	180	2	180	3	—	200	180	Mill, J. S.	.58
8	Milton, John	1608–1674	66	English	Writer, PND	Scrivener	*Milton	145 ± 5	3.5	.75	150	3	130	4	150	4	—		170 ± 4	3	.82	155	3	190	3	165	3	—		—	155	180	Milton	.59
30	Mirabeau, G. H. V. Requetti de	1749–1791	42	French	Revol. Statesman	(Nobleman), Writer	*Mirabeau	165 ± 7	4.5	.60	190	3	150	5	150	6	130	5	175 ± 5	4	.75	190	3	175	4	165	5	130	5	—	180	195	Mirabeau	.46
22	Molière (J. B. Poquelin)	1622–1673	51	French	Writer, PND	Upholsterer	*Molière	130 ± 8	5.5	.43	135	5	130	5	125	6	105	6	130 ± 8	5.5	.43	135	5	120	5	135	6	105	6	—	155	160	Molière	.58
174	Monk, George	1608–1670	62	English	Soldier	(Country Gentleman)	Monk	110 ±10	6.5	.11	115	6	100	7	110	7	100	6	120 ±10	6.5	.11	125	6	105	7	125	6.5	110	5	—	125	140	Monk	—
98	Montaigne, Michel E. de	1533–1592	59	French	Writer, EHCS	Wineseller	Montaigne	140 ± 7	4.5	.60	140	5	125	5	150	4	125	5	140 ± 8	5.5	.43	140	5	125	7	150	5	125	5	—	155	165	Montaigne	—
171	Montesquieu, Baron de (C. de Secondat)	1689–1755	66	French	Writer, EHCS	Chief Justice District Court	Montesquieu	135 ± 8	5.5	.43	140	5	120	6	145	6	125	5	140 ± 8	5.5	.43	145	5	130	5	145	6	140	4	—	155	165	Montesquieu	—
185	Moore, Tom	1779–1852	73	Irish	Writer, PND	Merchant	Moore	140 ± 5	3.5	.75	135	3	135	5	145	3	140	3	140 ± 5	3.5	.75	140	3	135	5	145	3	140	3	—	150	150	Moore	—
64	More, Thomas	1478–1535	57	English	Statesman	Judge	More	135 ± 7	5	.53	140	5	130	4	135	6	130	5	135 ± 7	5	.53	145	5	130	5	135	5	150	4	—	150	165	More	—
183	Moreau, J. V. M.	1763–1813	50	French	Soldier	Lawyer	Moreau	110 ±13	7	.00	110	7	100	7	115	7	—		125 ± 9	6	.20	115	6	125	6	135	6	—		—	160	165	Moreau	—
56	Mozart, W. A.	1756–1791	35	Austrian	Musician	Musician and Composer	*Mozart	150 ± 5	3.5	.75	140	3	190	2	125	5	180	3	155 ± 5	3.5	.75	145	3	190	2	135	5	180	3	—	160	165	Mozart	.38
159	Murat, Joachim	1767–1815	48	French	Soldier	Innkeeper and Postmaster	*Murat	115 ±10	6.5	.11	120	6	120	6	110	7	100	7	120 ± 8	5.5	.43	125	6	120	5	120	6	100	7	—	130	135	Murat	.49
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)		(14)		(15)		(16)	(17)	(18)	(19)		(20)		(21)		(22)		(23)	(24)	(25)	(26)	(27)

* Member of Group C also.

TABLE 12 A—*Continued*

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (Group A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings: C Mn. 134.0 S.D. 16.4	M Mn. 134.7 S.D. 21.9	T Mn. 136.2 S.D. 19.4	G Mn. 126.6 S.D. 19.9	AII Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings: C Mn. 143.4 S.D. 15.5	M Mn. 144.8 S.D. 22.7	T Mn. 145.7 S.D. 16.8	G Mn. 135.6 S.D. 20.7	St Mn. 155.5 S.D. 16.85	Corrected IQ estimate: AI	AII	Name	Traits-rating reliability coeff.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
218	Murillo, Bartolomé	1617–1682	65	Spanish	Artist	Workman	*Murillo	110 ±10	6.5	.11	115 6	100 6	110 7	—	120 ±10	6.5	.11	125 6	120 6	120 7	—	—	130	150	Murillo	.68
261	Musset, Alfred de	1810–1857	47	French	Writer, PND	Civil Officer and Writer	Musset	160 ± 5	3.5	.75	150 4	165 4	170 3	160 3	170 ± 4	3	.82	150 3	185 3	170 3	160 3	—	170	180	Musset	—
99	Napier, John	1550–1617	67	Scotch	Scientist	Civil Officer	Napier	125 ± 9	6	.20	120 6	135 6	120 6	110 6	125 ±10	6.5	.11	120 6	135 7	125 6	110 6	—	155	170	Napier	—
1	Napoleon Bonaparte	1769–1821	52	French	Soldier	Lawyer	*Napoleon	135 ± 7	4.5	.60	145 4	125 4	130 5	—	140 ± 5	3.5	.75	150 3	135 3	140 4	—	—	140	145	Napoleon	.68
128	Necker, Jacques	1732–1804	72	Swiss	Statesman	University Professor	Necker	115 ±15	7	.00	120 7	110 7	110 7	100 7	120 ±10	6.5	.11	120 6	110 7	130 6	100 7	—	150	155	Necker	—
41	Nelson, Horatio	1758–1805	47	English	Soldier	Clergyman	*Nelson	125 ± 7	4.5	.60	125 5	130 4	120 5	110 6	145 ± 5	3.5	.75	135 4	160 3	140 4	120 6	—	130	150	Nelson	.54
7	Newton, Isaac	1642–1727	85	English	Scientist	Farmer	*Newton	130 ± 8	5.5	.43	125 6	140 5	130 0	—	170 ± 7	4.5	.60	155 5	190 4	160 5	—	—	150	190	Newton	.50
176	Ney, Michel	1769–1815	46	French	Soldier	Tunneler, Cooper	*Ney	110 ± 8	5.5	.43	120 5	100 6	115 6	105 6	120 ± 8	5.5	.43	125 5	110 6	130 6	115 6	—	120	135	Ney	.58
135	Niebuhr, B. G.	1776–1831	55	German	Writer, EHCS	Scientist, etc.	*Niebuhr	165 ± 5	3.5	.75	170 3	160 4	170 4	175 5	175 ± 5	3.5	.75	175 3	180 3	170 4	175 5	—	175	185	Niebuhr	.66
217	O'Connell, Daniel	1775–1847	72	Irish	Revol. Statesman	(Gentleman)	O'Connell	145 ± 5	3.5	.75	140 4	145 3	150 4	115 5	145 ± 5	3.5	.75	140 4	145 3	150 4	135 4	—	155	155	O'Connell	—
265	Palestrina, G. P. da	1525–1594	69	Italian	Musician	(Small Proprietor)	Palestrina	110 ±13	7	.00	100 7	120 7	110 7	100 7	120 ±10	6.5	.11	120 6	120 7	120 6.5	115 5	—	140	155	Palestrina	—
35	Pascal, Blaise	1623–1662	39	French	Scientist	Geometer and Physicist. Gov't off.	Pascal	180 ± 5	3.5	.75	165 4	195 3	180 3	190 5	180 ± 5	3.5	.75	165 4	195 3	180 3	190 5	—	190	195	Pascal	—
102	Peel, Robert	1788–1850	62	English	Statesman	Manufacturer and M. P.	*Peel	155 ± 7	4.5	.60	160 4	145 4	165 5	—	170 ± 5	3.5	.75	160 4	175 4	170 3	—	—	170	180	Peel	.39
13	Penn, William	1644–1718	74	English	Relig. Leader	Admiral	*Penn	135 ± 7	4.5	.60	125 5	140 4	135 5	—	150 ± 7	4.5	.60	140 4	165 4	140 5	—	—	150	170	Penn	.75
62	Pitt, William (Earl of Chatham)	1708–1778	70	English	Statesman	Business and Politics	Pitt (Elder)	140 ± 7	4.5	.60	145 4	140 4	140 5	110 5	140 ± 7	4.5	.60	145 4	140 4	140 5	110 5	—	155	155	Pitt (Elder)	—
9	Pitt, William (the Younger)	1759–1806	47	English	Statesman	Statesman	*Pitt (Younger)	160 ± 5	3.5	.75	185 3	150 3	150 4	140 4	180 ± 4	3	.82	190 3	175 3	170 3	150 4	—	170	190	Pitt (Younger)	.62
—	Pizarro, F.	(Insufficient	or no data	on early years)			Pizarro	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Pizarro	—
50	Pope, Alexander	1688–1744	56	English	Writer, PND	Merchant	Pope	160 ± 4	3	.82	150 3	165 3	165 3	160 4	170 ± 4	3	.82	160 3	185 3	170 3	160 4	—	165	180	Pope	—
201	Poussin, Nicolas	1594–1665	71	French	Artist	Soldier	Poussin	105 ±10	6.5	.11	100 6	100 7	110 7	100 7	115 ±10	6.5	.11	110 6	110 7	120 6.5	110 6	—	125	145	Poussin	—
177	Prescott, W. H.	1796–1859	63	American	Writer, EHCS	Lawyer	*Prescott	130 ± 7	4.5	.60	135 4	120 5	130 5	—	135 ± 7	4.5	.60	145 4	120 5	135 4	—	—	145	155	Prescott	.49
189	Priestley, Joseph	1733–1804	71	English	Scientist	Manufacturer	Priestley	140 ± 7	5	.53	130 5	150 5	135 5	120 5	150 ± 5	3.5	.75	135 4	165 3	145 4	150 5	—	155	165	Priestley	—
—	Rabelais, F.	(Insufficient	or no data	on early years)			Rabelais	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Rabelais	—
45	Racine, Jean	1639–1699	60	French	Writer, PND	Lawyer	Racine	135 ± 8	5.5	.43	130 5	140 6	130 6	110 6	150 ± 7	4.5	.60	140 5	155 4	150 5	140 5	—	160	170	Racine	—
74	Raleigh, Walter	1552–1618	66	English	Statesman	(Country Gentleman)	Raleigh	130 ± 9	6	.20	135 6	135 6	125 5	120 6	130 ±10	6.5	.11	135 6	135 7	125 6	120 6	—	160	165	Raleigh	—
11	Raphael Sanzio	1483–1520	37	Italian	Artist	Merchant, Poet, and Painter	*Raphael	110 ±10	6.5	.11	115 6	100 7	115 7	—	150 ± 8	5.5	.43	140 5	175 6	130 6	—	—	130	170	Raphael	.38
96	Rembrandt, H.	1606–1669	63	Dutch	Artist	Miller	Rembrandt	110 ± 9	6	.20	110 6	110 6	115 6	115 6	135 ± 8	5.5	.43	130 6	150 5	120 6	115 6	—	130	155	Rembrandt	—
256	Renan, Ernest	1823–1892	69	French	Writer, EHCS	Fisherman and Tradesman	Renan	150 ± 5	4	.75	145 4	150 4	150 4	160 4	160 ± 5	3.5	.75	155 4	170 3	160 4	160 4	—	160	170	Renan	—
212	Reuchlin, Johann	1455–1522	67	German	Writer, EHCS	Convent Steward	Reuchlin	120 ± 9	6	.20	125 5	120 7	120 6	125 6	150 ± 7	4.5	.60	150 4	150 5	145 5	150 4	—	150	170	Reuchlin	—
249	Reynolds, Joshua	1723–1792	69	English	Artist	Teacher	*Reynolds	125 ± 8	5.5	.43	120 6	120 5	130 6	—	125 ± 8	5.5	.43	130 6	120 5	130 6	—	—	140	145	Reynolds	.39
78	Richelieu, Duc de (A. J. du Plessis)	1585–1642	57	French	Statesman	Captain of Guard	Richelieu	120 ± 9	6	.20	120 6	120 6	120 6	110 6	135 ± 8	5.5	.43	140 6	130 5	140 6	120 5	—	150	160	Richelieu	—
266	Robertson, William	1721–1793	72	Scotch	Writer, EHCS	Clergyman	Robertson	135 ± 8	5.5	.43	135 5	135 5	140 6	120 5	140 ± 8	5.5	.43	145 5	135 5	140 6	120 5	—	155	165	Robertson	—
28	Robespierre, M. M. I. de	1758–1794	36	French	Revol. Statesman	Lawyer	*Robespierre	135 ± 8	5.5	.43	140 5	140 6	130 6	125 6	145 ± 8	5.5	.43	145 5	150 6	140 6	130 5	—	160	170	Robespierre	.44
180	Rossini, G. A.	1792–1868	76	Italian	Musician	Trumpeter, etc.	*Rossini	120 ± 8	5.5	.43	120 5	130 5	110 6	150 4	130 ± 7	4.5	.60	130 4	145 4	120 6	150 3	—	135	145	Rossini	.44
24	Rousseau, J. J.	1712–1778	66	Swiss	Writer, EHCS	Watchmaker	*Rousseau	130 ± 7	5	.53	125 5	125 5	145 5	—	125 ± 7	5	.53	130 5	110 5	130 5	—	—	150	150	Rousseau	.73
54	Rubens, Peter Paul	1577–1640	63	Flemish	Artist	Lawyer	Rubens	140 ± 8	5.5	.43	140 5	150 5	135 6	125 5	140 ± 8	5.5	.43	140 5	150 5	135 6	125 5	—	155	160	Rubens	—
281	St. Cyr, Gouvion	1764–1830	66	French	Soldier	Butcher, Tanner	St. Cyr	105 ±10	6.5	.11	115 6	100 7	100 7	100 7	115 ±10	6.5	.11	120 6	110 7	120 6.5	100 7	—	120	135	St. Cyr	—
228	St. Simon, C. H.	1760–1825	65	French	Philosopher	Army, State Official	St. Simon	130 ± 8	5.5	.43	125 5	125 6	135 6	125 5	135 ± 8	5.5	.43	140 5	125 6	135 6	125 5	—	155	165	St. Simon	—
213	Sainte-Beuve, C. A.	1804–1869	65	French	Writer, EHCS	Official, Writer	Sainte-Beuve	145 ± 5	4	.75	150 4	150 4	140 4	140 5	155 ± 5	3.5	.75	160 4	150 3	155 4	140 5	—	155	165	Sainte-Beuve	—
100	Sand, George (Aurore Dupin)	1804–1876	72	French	Writer, PND	Soldier, Writer	*Sand	150 ± 5	4	.75	150 4	150 4	145 4	140 5	150 ± 5	4	.75	150 4	150 4	145 4	140 5	—	160	160	Sand	.47
242	Sarpi, Pietro	1552–1623	71	Italian	Writer, EHCS	Merchant	Sarpi	165 ± 7	4.5	.60	160 5	160 4	170 4	140 5	175 ± 7	4.5	.60	165 5	185 4	170 4	150 5	—	180	195	Sarpi	—
107	Savonarola, Girolamo	1452–1498	46	Italian	Relig. Leader	(Courtier)	Savonarola	130 ±10	6.5	.11	135 7	120 6	130 6.5	—	135 ± 7	5	.53	140 5	120 5	140 5	—	—	160	155	Savonarola	—
253	Scaliger, J. J.	1540–1609	69	Italian	Writer, EHCS	Scholar	Scaliger, J. J.	120 ±10	6.5	.11	130 6	110 7	120 6.5	—	155 ± 7	5	.53	140 5	170 5	150 5	—	—	155	180	Scaliger, J. J.	—
38	Schelling, F. W.	1775–1854	79	German	Philosopher	Scholar and Teacher	*Schelling	175 ± 4	3	.82	175 3	170 3	175 3	140 4	180 ± 4	3	.82	185 3	185 3	175 3	140 4	—	180	190	Schelling	.49
46	Schiller, J. C. Friederich	1759–1805	46	German	Writer, PND	Army Surgeon and Major	*Schiller	140 ± 7	4.5	.60	135 4	140 4	145 5	—	155 ± 5	4	.75	140	165 4	155 4	—	—	155	165	Schiller	.47
138	Schleiermacher, F.	1768–1834	66	German	Philosopher	Clergyman	*Schleiermacher	150 ± 5	3.5	.75	150 3	150 4	150 4	140 5	145 ± 5	4	.75	150 3	150 4	140 5	150 4	—	160	160	Schleiermacher	.52
14	Scott, Walter	1771–1832	61	Scotch	Writer, PND	Lawyer	*Scott	150 ± 5	3.5	.75	145 3	160 3	140 4	170 5	155 ± 4	3	.82	145 3	155 3	160 3	170 5	—	160	165	Scott	.30
122	Sévigné, Mme. de (Marie de Rabutin-Chantal)	1626–1696	70	French	Writer, EHCS	(Nobleman)	Sévigné	125 ± 9	6	.20	125 6	130 6	125 6	120 6	135 ± 8	5.5	.43	135 6	130 5	135 6	120 6	—	155	160	Sévigné	—
250	Seward, W. H.	1801–1872	71	American	Statesman	Doctor, Merchant, Farmer	Seward	140 ± 7	4.5	.60	135 4	135 5	145 4	120 5	140 ± 7	4.5	.60	140 4	135 5	150 4	120 5	—	155	155	Seward	—
206	Shaftesbury, A. A.	1621–1683	62	English	Statesman	(Gentleman, M. P.)	Shaftesbury	125 ± 8	5.5	.43	125 6	120 5	135 6	115 6	130 ± 9	6	.90	135 6	120 6	140 6	125 5	—	145	165	Shaftesbury	—
—	Shakespeare, William	(Insufficient	or no data	on early years)			Shakespeare	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Shakespeare	—

* Member of Group C also.

TABLE 12 A—*Continued*

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (GROUP A)

Rank order of eminence (Cattell)	Name	Dates	Length of life (in years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	AI Average IQ (3 ratings: C, M, T) Mn. 134.9 S.D. 19.0	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings C Mn. 134.0 S.D. 16.4	M Mn. 134.7 S.D. 21.9	T Mn. 136.2 S.D. 19.4	G Mn. 126.6 S.D. 19.9	AII Average IQ (3 ratings: C, M, T) Mn. 144.7 S.D. 18.6	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings C Mn. 143.4 S.D. 15.5	M Mn. 144.8 S.D. 22.7	T Mn. 145.7 S.D. 16.8	G Mn. 135.6 S.D. 20.7	St Mn. 155.5 S.D. 16.85	Corrected IQ estimate AI	Corrected IQ estimate AII	Name	Trait rating reliability coeff.
203	Sheridan, R. B.	1751–1816	65	Irish	Writer, PND	Actor, Theater Manager	Sheridan, R. B.	130 ± 7	5	.53	130 6	130 5	130 4	110 5	145 ± 7	4.5	.60	145 5	145 5	150 4	140 4	—	150	165	Sheridan, R. B.	—
227	Sherman, William T.	1820–1891	71	American	Soldier	Judge	Sherman	125 ± 9	6	.20	120 6	130 6	125 6	110 6	135 ± 7	4.5	.60	125 5	135 5	140 4	130 5	—	135	145	Sherman	—
175	Smith, Adam	1723–1790	67	Scotch	Writer, EHCS	State Official, Judge, Advocate	Smith, A.	135 ± 8	5.5	.43	125 6	135 5	140 6	120 5	145 ± 7	5	.53	135 5	145 5	150 5	130 5	—	135	170	Smith, A.	—
193	Soult, Nicolas J. de D.	1769–1851	82	French	Soldier	Notary	Soult	115 ±10	6.5	.11	125 6	100 7	120 6.5	110 6	130 ± 9	6	.20	130 6	125 6	130 6	120 5	—	130	150	Soult	—
143	Spenser, Edmund	1552–1599	47	English	Writer, PND	Clock Maker	Spenser	135 ±10	6.5	.11	110 7	140 7	150 6	{100 7 150 4	145 ± 8	5.5	.43	140 5	140 6	150 6	150 4	—	170	175	Spenser	—
65	Spinoza, B.	1632–1677	45	Dutch	Philosopher	Officeholder	Spinoza	130 ± 9	6	.20	135 6	130 5	125 6.5	125 5	145 ± 8	5.5	.43	140 6	165 5	135 6	150 5	—	170	175	Spinoza	—
94	Staël-Holstein, Mme. de (Germaine Necker)	1766–1817	51	French	Writer, EHCS	Statesman and Financier	*Staël	155 ± 7	4.5	.60	140 6	145 5	175 3	—	160 ± 7	4.5	.60	145 6	155 5	175 3	—	—	170	180	Staël	.52
267	Strauss, D. F.	1808–1874	66	German	Relig. Leader	Merchant	Strauss	140 ± 7	4.5	.60	140 4	145 5	140 4	125 5	160 ± 5	4	.75	160 4	165 4	150 4	165 4	—	155	170	Strauss	—
51	Swedenborg, Emanuel	1688–1772	84	Swedish	Relig. Leader	Clergyman, Writer	Swedenborg	115 ±10	6.5	.11	115 6	110 7	120 6.5	110 6	145 ± 7	5	.53	140 5	150 5	145 5	160 4	—	145	165	Swedenborg	—
38	Swift, Jonathan	1667–1745	78	English	Writer, EHCS	Member King's Inn	Swift	125 ± 8	5.5	.43	115 6	125 4	140 6	140 5	130 ± 7	5	.53	120 5	135 5	140 5	140 5	—	145	155	Swift	—
48	Tasso, Torquato	1544–1595	51	Italian	Writer, PND	Courtier, Poet	Tasso	160 ± 7	5	.53	135 5	165 5	175 5	150 5	155 ± 7	5	.53	145 5	150 5	165 5	150 5	—	180	180	Tasso	—
264	Temple, William	1628–1699	71	English	Statesman	Lawyer, Statesman	Temple, W	130 ± 9	6	.20	130 6	135 6	125 6.5	110 6	120 ±10	6.5	.11	120 6	125 7	120 6	110 6	—	160	155	Temple, W.	—
76	Tennyson, Alfred	1809–1892	83	English	Writer, PND	Clergyman	*Tennyson	155 ± 4	3	.82	145 3	150 3	170 3	180 4	160 ± 4	3	.82	145 3	170 3	170 3	180 4	—	160	170	Tennyson	.34
190	Thackeray, W. M.	1811–1863	52	English	Writer, PND	Judge	Thackeray	135 ± 5	4	.75	135 4	140 4	135 4	140 4	140 ± 5	3.5	.75	140 4	140 5	140 4	140 4	—	145	150	Thackeray	—
39	Thiers, Louis A.	1797–1877	80	French	Statesman	Workman	*Thiers	120 ± 9	6	.20	140 5	100 7	120 6	—	140 ± 7	5	.53	150 4	125 5	145 6	—	—	150	160	Thiers	.53
236	Thou, J. A. de	1553–1617	64	French	Writer, EHCS	Pres. Parl't of Paris	Thou	125 ± 9	6	.20	120 6	130 6	130 6	120 5	135 ± 9	6	.20	135 6	130 6	135 6	120 5	—	155	175	Thou	—
245	Tieck, Ludwig	1773–1853	80	German	Writer, PND	Master Rope Maker	Tieck	155 ± 5	4	.75	150 4	160 3	150 5	140 5	155 ± 5	4	.75	150 4	160 3	150 5	140 5	—	165	165	Tieck	—
—	Titian	(Insufficient	or no data	on early years)			Titian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Titian	—
164	Turgot, Robert Jacques	1727–1781	54	French	Statesman	Statesman	Turgot	140 ± 8	5.5	.43	135 5	145 5	135 6	125 5	160 ± 5	3.5	.75	160 3	165 4	155 4	170 4	—	160	170	Turgot	—
92	Van Dyck, Anthony	1599–1641	42	Flemish	Artist	Merchant	Van Dyck	120 ± 9	6	.20	125 5	120 6	115 7	100 7	135 ± 8	5.5	.43	135 5	140 6	135 6	100 7	—	140	155	Van Dyck	—
234	Vauban, Sebastian de	1633–1707	74	French	Soldier	(Nobleman)	Vauban	100 ±10	6.5	.11	100 6	100 7	100 7	95 6	125 ± 8	5.5	.43	135 5	115 6	130 6	115 5	—	115	140	Vauban	—
125	Vega, Lope de	1562–1635	73	Spanish	Writer, PND	Basketmaker (?)	Vega, de	140 ± 7	5	.53	140 4	135 5	150 6	130 5	145 ± 8	5.5	.43	130 4	135 6	150 6	140 5	—	160	175	Vega, de	—
146	Velasquez, Diego	1599–1660	61	Spanish	Artist	Lawyer	Velasquez	125 ± 9	6	.20	120 6	140 5	120 6.5	120 5	140 ± 9	6	.20	135 6	150 5	130 6.5	120 5	—	145	170	Velasquez	—
243	Vergniaud, Pierre	1753–1793	40	French	Revol. Statesman	Business Man	Vergniaud	130 ± 9	6	.20	130 6	130 6	125 6.5	125 5	135 ± 9	6	.20	145 6	130 6	135 6	135 5	—	160	170	Vergniaud	—
52	Vinci, Leonardo da	1452–1519	67	Italian	Artist	Farmer (Owner)	Vinci, da	135 ± 9	6	.20	130 6	150 6	125 6	115 5	150 ± 9	6	.20	140 6	165 6	150 6	125 5	—	155	180	Vinci, da	—
2	Voltaire, Arouet de	1694–1778	84	French	Writer, PND	Notary	*Voltaire	170 ± 5	3.5	.75	165 3	185 3	165 5	—	180 ± 5	3.5	.75	185 3	185 3	165 5	—	—	180	190	Voltaire	.41
188	Wagner, Richard	1813–1883	70	German	Musician	Court Clerk	*Wagner	135 ± 7	5	.53	135 5	140 5	130 5	130 5	150 ± 7	5	.53	140 5	160 5	145 5	130 5	—	150	170	Wagner	.63
87	Wallenstein, Albrecht von	1583–1634	51	Austrian	Soldier	(Nobleman)	Wallenstein	110 ±10	6.5	.11	120 7	100 6	110 6.5	100 6	115 ±10	6.5	.11	120 6.5	115 6	115 6.5	100 6	—	125	135	Wallenstein	—
224	Walpole, Robert	1676–1745	69	English	Statesman	Country Gentleman, Statesman	Walpole	125 ± 8	5.5	.43	125 5	120 6	125 6	105 6	130 ± 8	5.5	.43	135 5	120 5	135 6	110 5	—	145	155	Walpole	—
282	Warburton, William	1698–1779	81	English	Relig. Leader	Lawyer	Warburton	115 ± 8	5.5	.43	115 5	100 6	135 6	110 6	130 ± 8	5.5	.43	130 5	120 6	140 6	120 5	—	135	155	Warburton	—
10	Washington, George	1732–1799	67	American	Soldier	Farmer (Owner)	*Washington	125 ± 7	4.5	.60	125 3	120 5	125 5	110 6	135 ± 5	4	.75	135 3	140 5	130 4	120 5	—	130	140	Washington	.70
139	Watt, James	1736–1819	83	Scotch	Scientist	Merchant	Watt, J.	140 ± 7	5	.53	135 4	160 5	130 6	140 5	145 ± 7	4.5	.60	140 4	160 5	140 5	150 5	—	155	165	Watt, J.	—
204	Weber, Karl Maria von	1786–1826	40	German	Musician	Army Officer, Musician	*Weber	135 ± 7	4.5	.60	125 4	150 5	130 5	125 5	145 ± 7	5	.53	135 4	165 5	130 6	135 5	—	145	165	Weber	.58
105	Webster, Daniel	1782–1852	70	American	Statesman	Farmer (Owner)	*Webster	145 ± 7	4.5	.60	140 4	140 5	160 4	135 5	150 ± 7	4.5	.60	140 4	145 5	160 4	145 4	—	160	165	Webster	.58
200	Wesley, John	1703–1791	88	English	Relig. Leader	Clergyman	*Wesley	135 ± 7	4.5	.60	140 4	130 5	140 5	125 5	140 ± 7	4.5	.60	150 4	130 5	140 5	130 5	—	150	160	Wesley	.36
152	Wieland, Christopher M.	1733–1813	80	German	Writer, PND	Clergyman	Wieland	160 ± 5	3.5	.75	145 3	160 4	170 4	150 5	160 ± 5	3.5	.75	150 3	160 4	170 4	150 5	—	170	170	Wieland	—
244	Wilberforce, William	1759–1833	74	English	Statesman	Merchant	Wilberforce	120 ± 9	6	.20	120 6	110 6	125 6	115 6	130 ± 8	5.5	.43	135 5	110 6	140 5.5	120 6	—	150	155	Wilberforce	—
220	Wilkes, John	1727–1797	70	English	Statesman	Distiller	Wilkes	120 ± 8	5.5	.43	115 5	115 6	130 6	110 6	125 ± 8	5.5	.43	125 5	120 6	135 6	110 6	—	140	150	Wilkes	—
202	Winckelmann, J. J.	1717–1768	51	German	Writer, EHCS	Cobbler	Winckelmann	145 ± 7	4.5	.60	135 4	145 5	160 5	130 5	145 ± 7	4.5	.60	135 4	145 5	160 5	140 5	—	160	165	Winckelmann	—
272	Wolf, Friedrich August	1759–1824	65	German	Writer, EHCS	Schoolmaster, Organist	Wolf, F. A.	155 ± 5	4	.75	150 4	160 4	155 4	150 5	165 ± 5	4	.75	160 4	160 4	170 4	150 5	—	165	175	Wolf, F. A.	—
221	Wolsey, Thomas	1475–1530	55	English	Statesman	Merchant	Wolsey	165 ± 8	5.5	.43	150 5	165 6	175 5	140 4	165 ±10	6.5	.11	150 6	165 7	175 6	140 4	—	185	200	Wolsey	—
40	Wordsworth, William	1770–1850	80	English	Writer, PND	Lawyer	*Wordsworth	150 ± 5	3.5	.75	140 3	140 4	165 4	120 6	155 ± 5	3.5	.75	145 3	160 4	165 4	130 4	—	160	165	Wordsworth	.46
110	Zwingli, Ulrich	1484–1531	47	Swiss	Relig. Leader	Farmer (Owner)	Zwingli	140 ± 8	5.5	.43	140 5	140 6	140 5	125 5	140 ± 8	5.5	.43	140 5	140 6	140 5	130 5	—	160	165	Zwingli	—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)

TABLE 12 B

INDIVIDUAL IQ RATINGS OF YOUNG GENIUSES (Group B)

Rank order of eminence (Cattell)	Name	Dates	Length of life (years)	Nationality	Eminence achieved (primarily) as:	Father's occupation (or standing)	Name	BI Average IQ (3 ratings: C, M, T) Mn. 132.0 S.D. 17.3	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (I) with individual reliability grade ratings C Mn. 134.2 S.D. 12.5		M Mn. 127.4 S.D. 20.5		T Mn. 134.5 S.D. 16.9		G Mn. 125.8 S.D. 15.2		BII Average IQ (3 ratings: C, M, T) Mn. 136.9 S.D. 15.2	Average reliability grade	Reliability coeff. of data	Individual IQ ratings (II) with individual reliability grade ratings C Mn. 138.7 S.D. 11.7		M Mn. 132.9 S.D. 17.3		T Mn. 139.2 S.D. 12.6		G Mn. 133.7 S.D. 13.6		Trial ratings Average IQ (3 trial ratings: C, M, T) Mn. 130.5 S.D. 16.6	Average IQ (5 trial ratings: C, M, T) Mn. 136.3 S.D. 16.2	Individual trial ratings C Mn. 135.8 S.D. 15.9	M Mn. 133.2 S.D. 19.4	T Mn. 149.5 S.D. 10.9	G Mn. 131.8 S.D. 12.3	KG Mn. 131.3 S.D. 16.0	Corrected IQ estimate AI	AII	Name
5	Anderson, Hans Christian	1805–1875	70	Danish	Writer, PND	Shoemaker	Anderson	115 ± 7	4.5	.60	110	5	100	5	135	4	125	5	125 ± 7	4.5	.60	125	5	120	4	135	4	130	5	120	120	120	100	140	130	120	130	145	Anderson
15	Brontë, Charlotte	1816–1855	39	English	Writer, PND	Clergyman, etc.	Brontë, C.	155 ± 4	3	.82	150	3	150	3	165	3	140	4	155 ± 4	3	.82	150	3	150	3	165	3	140	4	155	150	150	150	160	140	150	160	165	Brontë, C.
9	Clarendon, Earl of (George Villiers)	1800–1870	70	English	Statesman	Civil Official	Clarendon	120 ± 9	6	.20	120	6	120	6	120	6	100	7	125 ± 9	6	.20	125	6	120	6	125	6	110	6	125	125	120	120	140	120	125	150	160	Clarendon
13	Eliot, George (Mary Ann Evans)	1819–1880	61	English	Writer, PND	Forester, Surveyor	Eliot, G.	150 ± 7	4.5	.60	150	3	145	5	150	5	140	5	150 ± 5	4	.75	150	3	155	4	150	5	140	5	155	150	150	150	155	140	150	165	160	Eliot, G.
12	Fulton, Robert	1765–1815	50	American	Scientist	Farmer	Fulton	105 ±10	6.5	.11	115	6	100	6	100	7	110	6	115 ± 9	6	.20	120	6	100	6	120	6	110	6	120	115	120	105	140	115	100	135	155	Fulton
1	Gambetta, Leon Michel	1838–1882	44	French	Statesman	Merchant	Gambetta	140 ± 5	4	.75	145	4	130	4	140	4	130	4	140 ± 7	4.5	.60	145	4	130	5	145	4	140	4	150	140	170	130	150	120	120	150	155	Gambetta
8	Garrison, William Lloyd	1805–1879	74	American	Statesman	Sea Captain	Garrison	115 ± 8	5.5	.43	130	5	100	5	120	6	115	5	130 ± 7	4.5	.60	135	5	115	4	135	4	140	4	130	125	140	120	135	120	120	135	145	Garrison
6	Gaskell, E. C. S.	1810–1865	55	English	Writer, PND	Clergyman, Farmer,	Gaskell	110 ± 9	6	.20	120	6	100	6	110	6	110	6	115 ±10	6.5	.11	120	6	100	7	120	6	110	6	120	120	110	115	130	125	110	145	160	Gaskell
4	Hawthorne, Nathaniel	1804–1864	60	American	Writer, PND	Sea Captain [Writer	Hawthorne	140 ± 5	3.5	.75	130	4	150	3	145	4	150	5	135 ± 7	4.5	.60	130	4	135	4	140	5	150	5	140	135	130	130	155	130	120	150	155	Hawthorne
10	Holberg, Ludwig von	1684–1754	70	Danish	Writer, PND	Army Lieutenant	Holberg	120 ± 9	6	.20	120	6	110	6	125	6	100	7	135 ± 8	5.5	.43	140	6	125	5	135	6	125	6	130	125	120	135	140	120	120	155	165	Holberg
7	Lee, Robert E.	1807–1870	63	American	Soldier	Statesman	Lee	130 ± 8	5.5	.43	135	4	120	6	135	6	110	6	130 ± 7	5	.53	135	4	120	6	140	5	125	5	135	135	140	125	145	125	150	140	140	Lee
18	Livingstone, David	1813–1873	60	English	Scientist	Tailor, Merchant	Livingstone	135 ± 8	5.5	.43	135	5	145	5	130	6	150	5	140 ± 8	5.5	.43	140	4	145	6	130	6	150	5	145	145	130	150	160	150	130	155	170	Livingstone
19	Martineau, Harriet	1802–1876	74	English	Writer, EHCS	Manufacturer and	Martineau	140 ± 7	4.5	.60	140	4	145	5	135	5	130	5	140 ± 7	4.5	.60	145	4	145	5	135	5	130	5	150	150	150	145	160	140	150	155	160	Martineau
11	Miller, Hugh	1802–1856	54	English	Scientist	Seaman [Merchant	Miller	135 ± 7	4.5	.60	140	4	125	4	140	5	125	5	130 ± 7	5	.53	140	4	125	5	130	6	125	5	140	140	135	130	155	140	130	150	155	Miller
14	Newman, John Henry	1801–1890	89	English	Relig. Leader	Banker	Newman	155 ± 5	4	.75	150	4	155	4	155	4	140	5	155 ± 5	4	.75	155	4	155	4	155	4	150	5	155	150	140	150	170	150	130	165	165	Newman
3	Oersted, Hans Christian	1777–1851	74	Danish	Scientist	Apothecary	Oersted	140 ± 7	5	.53	145	4	135	5	140	6	125	5	160 ± 7	4.5	.60	160	4	170	5	155	5	150	5	155	155	160	155	160	150	160	155	180	Oersted
17	Sheridan, P. H.	1831–1888	57	American	Soldier	Farmer	Sheridan	110 ± 8	5.5	.43	125	4	100	6	110	6	115	6	125 ± 7	4.5	.60	125	4	115	5	130	5	125	5	120	120	115	115	135	115	120	120	135	Sheridan
2	Southey, Robert	1774–1843	69	English	Writer, PND	Linendraper	Southey, R.	155 ± 7	5	.53	145	5	160	5	160	5	140	5	155 ± 7	4.5	.60	145	4	160	5	160	4	140	5	145	145	130	140	165	150	150	175	175	Southey, R.
16	Sumner, Charles	1811–1874	63	American	Statesman	Lawyer	Sumner	140 ± 7	4.5	.60	145	5	130	4	140	5	135	5	145 ± 7	4.5	.60	150	5	140	5	140	4	150	5	155	145	150	160	155	125	140	155	160	Sumner
1.	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)		(14)		(15)		(16)	(17)	(18)	(19)		(20)		(21)		(22)		(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)

data; also above the Writers (PND), the adequacy of whose records is even greater than that for the Philosophers. The Soldiers score lowest. The Artists are also low, but somewhat above the Soldiers. The former show a greater gain than the latter on the AΠ IQ estimates. For both groups the records are very inadequate (cf. the reliability coefficients). Differences of significance are revealed when comparisons between the groups are made on the basis of equal reliability of data. (See Table 47.)

The obtained scores probably indicate true differences in "brightness" between the groups. For example, the more complete records of the philosophers are an indication that their corrected scores would not be equalled by the soldiers even if complete data were available for both. In attempting a corrected estimate these differences have not been overlooked. (See Chapter V.)

CHAPTER V

TREATMENT OF THE IQ

The material upon which intelligence ratings of historical persons may be based is discussed in Chapters VI to X, where the available data for typical cases are analyzed with reference to the evidence they give of the presence of the specific "brightness" factor in the youthful behavior of the subjects. In Chapter V the method and mechanics of the actual rating process are described. Measures of agreement among various raters,[1] measures of the reliability of the individual raters, and measures of the correctness of the averages of their ratings are reported. These indicate in a general way the extent to which the method of historiometry may be expected to give valid results in the evaluation of intelligence. Further, a method of correction is presented which takes account of the constant error due to the incompleteness of the records. Corrected scores have been computed which approximate more nearly the true IQ's of the 301 gifted children than do the estimates of the raters, which are limited by lack of sufficient historical material.

After the original data had been gathered and recorded in 301 case studies, comprising some 8,500 typed pages, the

[1] Five raters (denoted by T, M, KG, St, and G) took part with the writer (C) in estimating the intelligence of the 301 cases included in Groups A and B: Dr. Lewis M. Terman, Professor of Psychology, Stanford University; Dr. Maud A. Merrill, Assistant Professor of Psychology, Stanford University; Dr. Florence L. Goodenough, assistant to Dr. Terman in the Gifted Children Research at Stanford University; Dr. Kate Gordon, Associate Professor of Psychology, University of California, Southern Branch; Lulu M. Stedman, Director of Opportunity Class for Gifted Children, University of California, Southern Branch.

Dr. Kate Gordon rated 19 cases of Group B; Miss Stedman 50 cases of Group A; Dr. Goodenough Group B and 238 cases of Group A; Dr. Terman, Dr. Merrill, and the writer all of Groups A and B (301 cases).

The previous clinical experience of the raters is a matter of considerable importance. Dr. Merrill had had most extensive experience with the feeble-minded (as well as large practice among unselected children), Miss Stedman with the gifted, Dr. Goodenough with both the backward and the gifted. The experience of Dr. Gordon, Dr. Terman, and the writer had been less specialized. All of the raters, however, had examined many children of every degree of intelligence and were thoroughly familiar with mental age standards.

material was rated (1) with reference to intelligence, and (a representative part) later (2) with reference to interests and 67 traits of character. The procedure in rating the IQ concerns us here.

The Trial Rating

The intelligence of the members of Group B was rated by the five raters T, M, G, KG, and C. (For ratings see Table 12B, and Figure 4.) The raters were instructed (*a*) *to rate objectively on the evidence* recorded for the first 26 years, and (*b*) *not to overrate.* The agreement of the obtained estimates of the raters is indicated in three ways: (1) The relative or proportional agreement of each of the five series of ratings is measured by the coefficient of correlation (*r*).[1] (2) The agreement in range or scatter is measured by comparing the standard deviations (S.D.). (3) The agreement in the estimates of the difference between the average of Group B and that of a distribution of unselected children is measured by comparing the means (Mn) with each other and with the mean of unselected children (100 IQ). If the *r*'s are high and if the S.D.'s and Mn's for the different raters agree fairly well, then the data furnish information adequate for rating the IQ. The means, standard deviations, and intercorrelations obtained in the trial rating of Group B are represented in Table 13. The results showed sufficient agreement, both relative and absolute, between the estimates of mental testers of wide and dissimilar experience, to warrant the use of a similar method in rating Group A.[2]

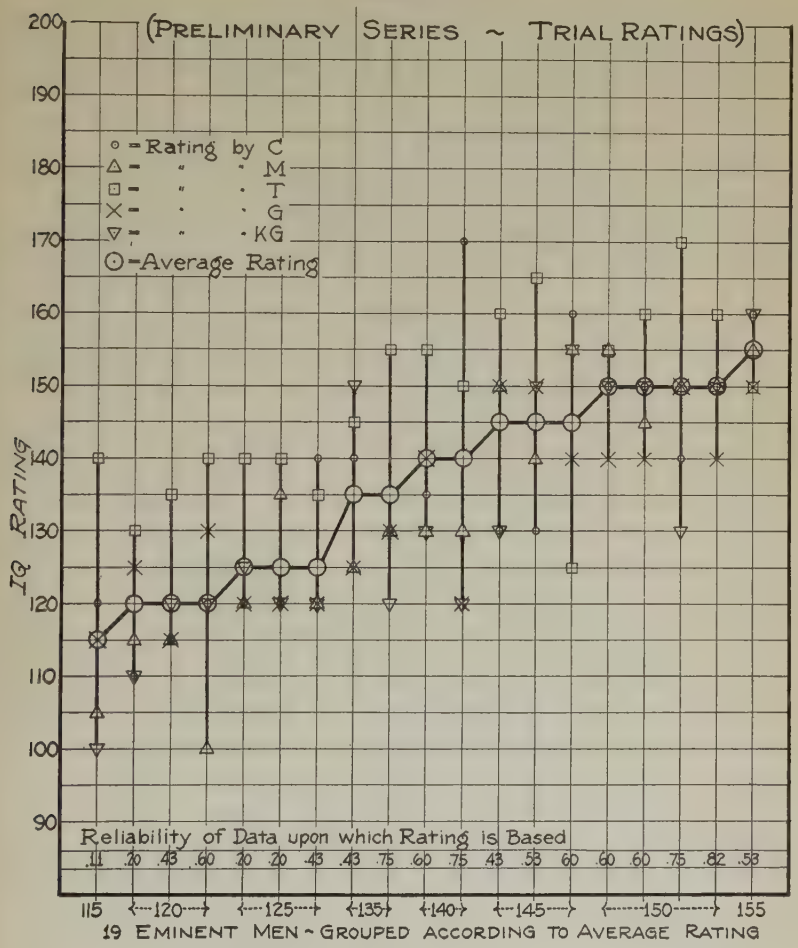
The experience of the raters in making the trial ratings led to one important change in the procedure in rating the main group. Serious difficulty had been encountered by all of the raters when they attempted to equate the behavior and performance of the subjects in the years between 17 and 26 to standards whose value could be expressed in terms of the IQ. A single rating for the 26-year period might depend almost wholly on data for the last six to nine years;

[1] The correlation coefficients throughout this study were derived by the Pearson product-moment formula, except those relating to rank order of eminence, for which the Spearman formula for ranks was used.

[2] The judges who had rated Group B and who later rated Group A were informed of the results in Table 13 before they proceeded to further rating.

FIGURE 4

INDIVIDUAL AND AVERAGE TRIAL RATINGS OF 19 YOUNG GENIUSES (GROUP B)



it might depend (rarely) almost wholly on data for the first 17 years; or it might include evidence from both the earlier and the later years of the period. A single rating for the whole period made no distinction between matter that could be correlated with a fair degree of assurance with intelligence test scores (early performance and behavior before

the age of 17) and that which could be no more than inferred. Hence, a double rating scheme was planned which required the raters to estimate two IQ's for each subject: the first, on the data for the first 17 years, the other adding to this or subtracting from it on the basis of the additional information for the period from age 17 to age 26.

TABLE 13

INTERCORRELATION OF FIVE SERIES OF TRIAL RATINGS ON GROUP B, WITH MEANS AND STANDARD DEVIATIONS OF EACH SERIES

Raters	C Mn 135.8 S.D. 15.9	M Mn 133.2 S.D. 19.4	T Mn 149.5 S.D. 10.9	G Mn 131.8 S.D. 12.3	KG Mn 131.3 S.D. 16.0
C	—	.77 ± .09	.71 ± .09	.77 ± .09	.81 ± .07
M	.77 ± .09	—	.77 ± .09	.77 ± .09	.79 ± .09
T	.71 ± .09	.77 ± .09	—	.82 ± .07	.70 ± .09
G	.77 ± .09	.77 ± .09	.82 ± .07	—	.77 ± .09
KG	.81 ± .07	.79 ± .09	.70 ± .09	.77 ± .09	—
Ave.	.76 ±<.08	.78 ±<.09	.75 ±<.08	.78 ±<.08	.77 ±<.08

The raters reported that they were fairly confident of the correctness of some of their estimates while others appeared extremely doubtful. The rating seemed relatively certain when the data included many items each of which served as a fair index of brightness and when the several indices agreed. It seemed relatively doubtful when the items were few or when they were contradictory. A method was, therefore, devised for obtaining a measure of the reliability of the data on which the IQ ratings were based.[1]

RATING OF GROUP A

The 282 cases in Group A were evaluated by T, M, and C, and in part by G (238 cases). St rated 51 cases on the same basis as that used in the trial series. Hence her ratings, based on all of the evidence for the first 26 years, are comparable to the second ratings of the other judges.

The raters were instructed: (1) *to rate on the evidence;* (2) *not to overrate;* (3) to rate the IQ on the data for the first 17 years inclusive (Rating I);[2] (4) to estimate the relia-

[1] This method is described on pp. 73 ff.

[2] The average in each case of the three ratings (I) made by T, M, and C, is called the AI IQ.

bility of the given data for the purpose of rating an IQ as compared with a Stanford-Binet test; (5) to rate IQ increment or decrement, increase or decrease of Rating I, on the basis of the additional data for the years from 17 to 26 (Rating II);[1] and (6) to estimate the reliability of the data on which this rating of IQ increment or decrement was based.

The entire series of IQ ratings reported by each rater and also the AI and AII IQ's appear in Table 12A. The original ratings and the AI IQ ratings of T, M, and C are graphed in Figure 1. The relative and the absolute agreement of the series of ratings are indicated by the means, standard deviations, and intercorrelations presented for Rating I in Table 14 and for Rating II in Table 15.

TABLE 14

INTERCORRELATIONS OF THE IQ RATINGS OF GROUP A BY C, M, T, AND G (RATING I)

	C (282 cases) Mn 134.0 S.D. 16.4	M (282 cases) Mn 134.7 S.D. 21.9	T (282 cases) Mn 136.2 S.D. 19.4	G (238 cases) Mn 126.2 S.D. 19.4
C	—	.73 ±.005	.74 ±.005	.67 ±.006
M	.73 ±.005	—	.75 ±.005	.74 ±.006
T	.74 ±.005	.75 ±.005	—	.78 ±.006
G	.67 ±.006 (238 cases)	.74 ±.006 (238 cases)	.78 ±.006 (238 cases)	—
Ave. CMTG (238 cases)	.72 ±<.005	.74 ±<.005	.76 ±<.005	.73 ±<.006
Ave. (AI) CMT (282 cases)	.74 ±<.005	.74 ±<.005	.75 ±<.005	

The relative agreement (measured by the correlation coefficients) between the series of ratings on the many and difficult cases in Group A (282 cases) proved to be little lower than that between the series of ratings on the short and easy Group B (19 cases). The absolute agreement between the means and the standard deviations of the IQ series of the different raters is greater for Group A than for Group B. Possibly the training derived from the trial ratings had some value in stabilizing the estimates. However, no rater of either series knew the estimates made by any other rater until after his own estimates were completed.

[1] The average in each case of the three ratings (II) made by T, M, and C, respectively, is called the AII IQ.

Of the six intercorrelations (Table 14) of the four series of IQ estimates called Rating I, five are between .73±.005 and .78±.005, and one is at .67±.006. The standard deviations indicate that the four distributions are not dissimilar;

TABLE 15

INTERCORRELATIONS OF THE IQ RATINGS OF GROUP A BY C, M, T, G, AND St (RATING II)

	C (282 cases) Mn 143.4 S.D. 15.5	M (282 cases) Mn 144.8 S.D. 22.7	T (282 cases) Mn 145.7 S.D. 16.8	G (238 cases) Mn 135.6 S.D. 20.7	St (51 cases) Mn 155.5 S.D. 16.85
C	—	.72 ±.005	.75 ±.005	.70 ±.006	.52 ±.069
M	.72 ±.005	—	.69 ±.005	.73 ±.006	.54 ±.066
T	.75 ±.005	.69 ±.005	—	.72 ±.006	.74 ±.043
G	.70 ±.006	.73 ±.006	.72 ±.006	—	.62 ±.058
St	.52 ±.069	.54 ±.066	.74 ±.043	.62 ±.058 (50 cases)	—
Ave. CMTGSt (51 cases)	.68 ±<.022	.67 ±<.021	.73 ±<.015	.65 ±<.019 (50 cases)	.61 ±<.059 (50 cases)
Ave. CMTG (238 cases)	.73 ±<.005	.72 ±<.005	.72 ±<.005	.72 ±<.006	.60 ±<.059 (50 cases)
Ave. (AII) CMT (282 cases)	.74 ±<.005	.71 ±<.005	.72 ±<.005	.72 ±<.006	.53 ±<.068 (51 cases)

three agree closely, 19.4 (T and G), 21.9 (M), while one is somewhat lower, 16.4 (C). The stability of these and the close approximation to one another of three of the four means, 134.0 (C), 134.7 (M), 136.2 (T)—the fourth is somewhat lower, 126.2 (G)—indicate agreement among the judges both as to proportional evaluations (in four cases) and absolute (in three cases, approximately in the fourth).

Of the ten intercorrelations (Table 15) of the five series of IQ estimates called Rating II, six are between .70±.006 and .75±.005. One is at .69±.005 and two are as low as .52 ±.069 and .54 ±.066. The standard deviations, which range from 15.5 (C) to 22.7 (M) indicate somewhat greater dissimilarity in the form of the five curves. Three of the means again agree closely: 143.4 (C), 144.8 (M), and 145.7 (T), while the other two are approximately equidistant from the average of these, one above, the other below. In the case of Rating II as in Rating I and Trial Rating B the degree of consistency among the individual raters' judgments in-

spires considerable confidence in the scores they have assigned. We may conclude from an examination of the correlations, means, and standard deviations in Tables 13, 14, and 15, that trained mental testers show a considerable and a stable agreement in their ratings of data such as ours, and therefore a certain credence may be placed in their findings.

The Reliability of the Raters

At the conclusion of the rating of Group A, and after a period of about eight weeks from the previous rating of Group B, raters T, M, C, and G rated Group B again, this time, giving an IQ estimate (Rating I) on the first 17 years and an IQ estimate (Rating II) which added to Rating I the evidence of the next nine years (to age 26). The second rating (II) was in this case comparable to the earlier trial ratings which were made for the whole 26-year period. The results showed intercorrelations (see Figure 5, p. 70) between the trial and final ratings on Group B as follows:

TABLE 16

Reliability of Four Raters, C, M, T, and G, as Shown by the Trial and Final (Rating II) IQ Estimates on Group B

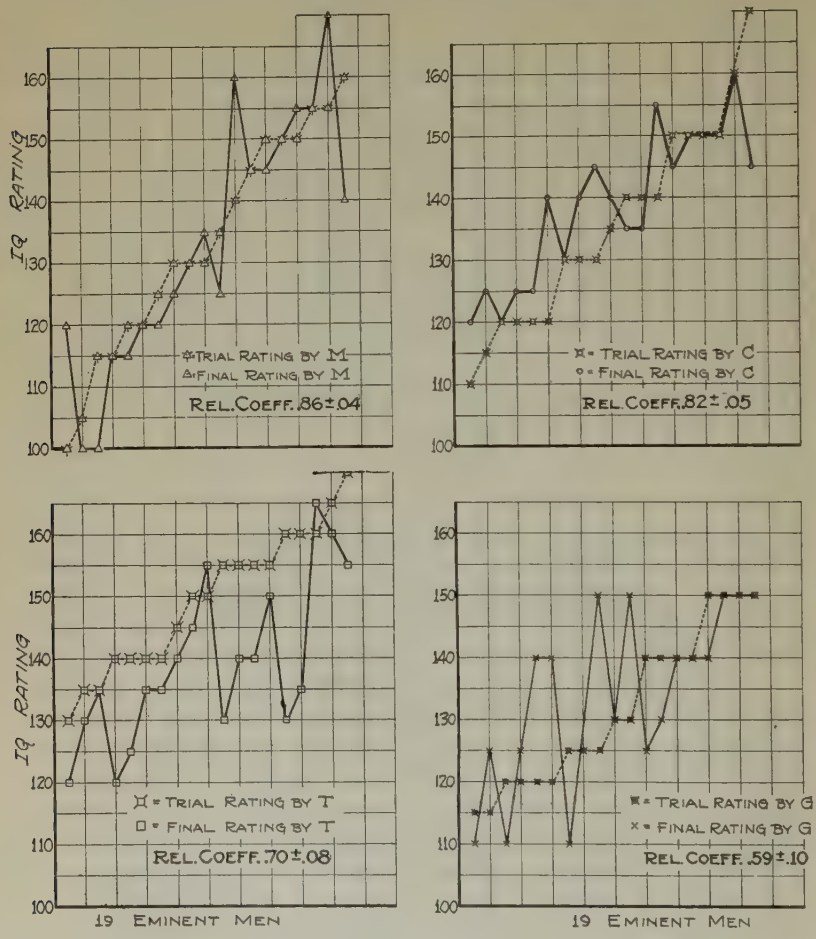
	C	M	T	G
Trial rating	Mn.135.8 S.D.15.9	Mn.133.2 S.D.19.4	Mn.149.5 S.D.10.9	Mn.131.8 S.D.12.3
Final rating	Mn.138.7 S.D.11.7	Mn.132.9 S.D.17.3	Mn.139.2 S.D.12.6	Mn.133.7 S.D.13.6
Rel. coeff.	.82 ±<.051	.86 ±<.041	.70 ±<.078	.59 ±<.101

While recall of the earlier ratings did not consciously influence the second judgment on the same material, it may have done so unconsciously. The reliability coefficient obtained by the method of repeating judgments on the same data can be accepted only as an indication of the upper limit or maximal value above which the true reliability coefficient will not lie. To obtain a reliability interpreted in this manner is, as Kelley[1] has pointed out, a sound procedure. The coefficients are significant here in so far as they show the relative dependableness of the four series of ratings. All four give evidence of their adequacy when evaluated in this way, while the general agreement of the means and standard deviations offers further evidence of the validity of the method of procedure.

[1] Kelley, Truman L., *Statistical Method,* New York, Macmillan, 1923, p. 203.

FIGURE 5

Reliability of Four Raters Indicated by the Agreement of Their Trial and Final (Rating II) IQ Estimates



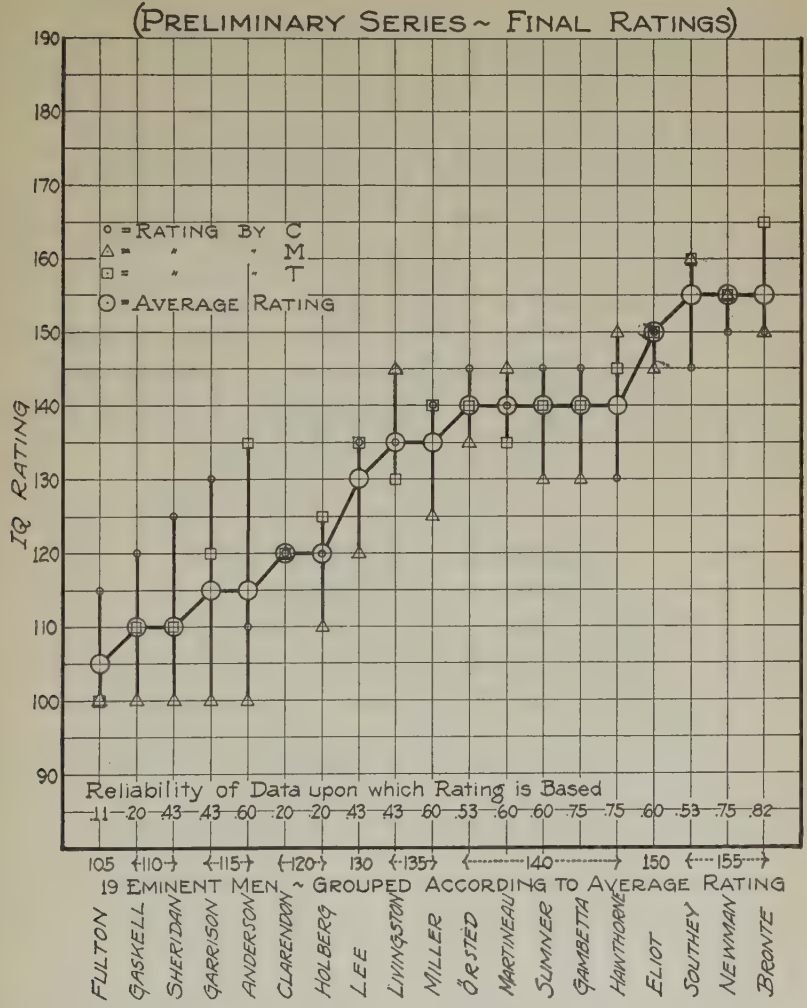
The Final IQ Ratings AI and AII

The AI IQ's[1] and the AII IQ's have been computed for each subject by averaging the ratings of C (reliability .82),

[1] The AI IQ's and the AII IQ's and the estimates (Ratings I and II) of which they are the averages, are given in Table 12A. See also Figure 1 for the AI IQ's and the estimates (Rating I) of which they are the averages.

FIGURE 6

INDIVIDUAL AND AVERAGE BI IQ ESTIMATES OF 19 YOUNG GENIUSES (GROUP B)



M (reliability .86), and T (reliability .70). Were the ratings of G (reliability .59) included, where available, in the average, the results would be, almost without exception, lower. On the other hand, were the ratings of St (reliability

not measured) included, when available, the results would be higher. From a consideration of the cases in which ratings by both G and St are available, it appears that, were both included in obtaining the AII ratings, the obtained results would deviate upward from the present AII by five points in one-third of the cases, downward five points in one-third, and would be unchanged in the remaining third. As ratings are not available from G and St for all of the cases, their ratings are not included in obtaining the final scores; for including one or the other in some of the averages would tend to distort the relation of such averages to the others. As it may be inferred from the present findings that the ratings of G and St, if present, would simply equalize one another and give an average approximating that of T, M, and C, we may accept as valid the averages obtained from the ratings of the latter whose records cover the entire series. The agreement of the means and the established reliability of the ratings of T, M, and C give a certain stability to findings based upon their judgments.[1]

The Probable Correctness of the Difference Between Means (Group A)

As a further indication of the stability of the IQ averages based on three ratings, the probable correctness of the difference between successive means has been calculated for the AI's by Boring's method.[2] From the results, entered in Table 17A, it appears that in the eleven differences between IQ intervals from 100 to 155 the probable correctness is between .98 and 1.00; i.e., absolute certainty, or a very close approximation to it. Of the seven differences above 155, where the groups are extremely small, four have a probable correctness of .87 or more, corresponding to a reliability coefficient above .74. The other three are no more significant than reliabilities of .69, .62, and .40, respectively. In order to ascertain more exactly the degree of stability of the means in the upper levels, the probable correctness of the difference between alternate means has been calculated for the small

[1] Cf. also correlation with G and KG in the trial series.

[2] Boring, E. G., "On the Computation of the Probable Correctness of Differences," *American Journal of Psychology*, Vol. 28, 1917, pp. 454 ff.

IQ groups above 155. The results, given in Table 17B, indicate in every case probable correctness above .92 even here; i.e., correctness as significant as reliability coefficients of .84 or above. In four of the cases the degree of correctness closely approximates absolute certainty. These findings indicate that the differences between successive estimated AI IQ's

TABLE 17 A

PROBABLE CORRECTNESS OF THE AI IQ MEANS OF THE GROUPS AT SUCCESSIVE IQ LEVELS

Groups compared		Dif. bet.means	Chances of deviation	Prob. that dif. will be less than zero (chances	Probable correctness
AI IQ Freqs.	AI IQ Freqs.	P.E. dif.	(per 10,000)	per 10,000)	of dif.
100 (3 cases)	105 (10 cases)	6.7	0	0	1.000
105 (10 cases)	110 (19 cases)	4.2	46	23	.998
110 (19 cases)	115 (11 cases)	4.9	10	5	.999
115 (11 cases)	120 (27 cases)	4.6	20	10	.999
120 (27 cases)	125 (32 cases)	8.1	0	0	1.000
125 (32 cases)	130 (21 cases)	6.1	0	0	1.000
130 (21 cases)	135 (41 cases)	6.4	0	0	1.000
135 (41 cases)	140 (28 cases)	6.9	0	0	1.000
140 (28 cases)	145 (30 cases)	5.6	2	1	1.000
145 (30 cases)	150 (24 cases)	4.6	20	10	.999
150 (24 cases)	155 (9 cases)	3.4	218	109	.989
155 (9 cases)	160 (8 cases)	2.5	918	459	.954
160 (8 cases)	165 (6 cases)	2.0	1774	887	.911
165 (6 cases)	170 (3 cases)	1.7	2516	1258	.874
170 (3 cases)	175 (3 cases)	.8	5894	2947	.705
175 (3 cases)	180 (3 cases)	2.1	1566	783	.922
180 (3 cases)	185 (3 cases)	1.5	3118	1559	.844
185 (3 cases)	190 (1 case)	1.3	3806	1903	.810
190 (1 case)					

separated by intervals of 5 IQ points are probably real differences except in one case (170 to 175), where the correctness of the difference is doubtful, and that the differences between alternate AI IQ steps are significant in every case.

RATING THE RELIABILITY OF THE DATA

The raters who estimated IQ's on the trial group (B) reported at the conclusion of the preliminary or trial series that the evidence presented for the 19 cases in Group B was not all of equal value for rating purposes. They stated that

some of their ratings were, in fact, based on such brief reports that they had scarcely more value than pure guesses, while others were based on records that offered almost as secure and reliable a basis for an IQ estimate as the results of a Stanford-Binet test.

TABLE 17 B

PROBABLE CORRECTNESS OF THE AI IQ MEANS OF THE GROUPS AT THE UPPER IQ LEVELS

Groups compared AI IQ Freqs.	AI IQ Freqs.	Dif. bet.means P.E. dif.	Chances of deviation (per 10,000)	Prob. that dif. will be less than zero (chances per 10,000)	Probable correctness of dif.
155 (9 cases)	—165 (6 cases)	4.5	24	12	.999
160 (8 cases)	—170 (3 cases)	3.2	310	155	.984
165 (6 cases)	—175 (3 cases)	3.4	218	109	.989
170 (3 cases)	—180 (3 cases)	2.35	1130	565	.943
175 (3 cases)	—185 (3 cases)	5.7	2	1	1.000
180 (3 cases)	—190 (1 case)	2.1	1566	783	.922

In order to indicate the relative dependability of the various IQ estimates a scale was devised for rating the reliability —i.e., the adequacy for the present purpose—of the data in each case study. The four raters C, M, T, and G were asked to rate the reliability of each of the cases in Group A and Group B (final ratings) on a seven-point scale[1] whose grades or steps were defined as follows:

Grade 1. Rating based on data equal to a Stanford-Binet test.

Grade 2. Rating based on data for which standardized norms are available or which are closely correlated with Stanford-Binet norms. (Example: Galton.)[2]

Grade 3. Rating based on documentary evidence combined with diagnostic descriptive material. (Example: J. Q. Adams.)

Grade 4. Rating based on less satisfactory documentary evidence and descriptive material, or on descriptive material

[1] The reliability rating was made and recorded directly after the IQ rating for each of the two periods for each case rated. The obtained grade ratings are entered with the obtained IQ ratings in Table 12A, columns 12 to 15 and 19 to 22, and in Table 12B, columns 12 to 15 and 19 to 22.

[2] See Terman, *American Journal of Psychology*, Vol. 28, pp. 209–215.

(definite statements as to school rank, etc.) without documents. (Example: Melanchthon.)

Grade 5. Rating based on general descriptive material. General statements of superiority (or inferiority) or of school standing, intellectual interests, etc. (Example: Fénelon.)

Grade 6. Rating based on slight evidence. Standing of the family combined with a statement as to school attendance. (Example: Bernadotte.)

Grade 7. Guess, based on no data. (Example: Drake.)

The steps between the grades were to be thought of as equal.

A method was then devised for computing the reliability coefficients of the data and the probable errors of the IQ estimates from the reliability grade ratings.

(1) Each of the grade ratings was interpreted as an index of reliability in terms of the Stanford-Binet scale variously abbreviated by an empirical procedure as follows: (*a*) Forty Stanford-Binet test blanks were scored with variously incomplete test results (hypothetical cases) so that there were an equal number of cases at each step of a series extending from a complete Stanford-Binet (6 tests for every year-group; scores extending over a sufficient range) to one-twelfth of such a test (1 test for every two-year-group; scores extending over a sufficient range). (*b*) The reliability of the recorded test results for each of the forty abbreviated cases (i.e., their adequacy to serve as a basis for rating an IQ) was rated by C, M, and T on the seven-point scale described above and the averages of the three ratings for each case served as a grade index of the reliability of the abbreviated test. The actual, as well as the relative agreement of the ratings was very close.[1] Expressed in terms of the Stanford-Binet scale variously abbreviated the seven points of the grade reliability scale were found to have the values recorded opposite them in the second column of Table 18.

(2) The reliability coefficients of the seven points in the grade scale were obtained by deriving the reliability coeffi-

[1] The three series of ratings correlated as follows:

$r_{TM} = .86 \pm .03$ $r_{TC} = .87 \pm .03$ $r_{MC} = .92 \pm .02$

TABLE 18

GRADE RATINGS ON DATA IN TERMS OF THE STANFORD-BINET TEST VARIOUSLY ABBREVIATED, WITH THE RELIABILITY COEFFICIENT OF EACH

Grade	Complete or abbreviated forms of Stanford-Binet test	Rel. coeff. of data	$\sigma_{a.\infty}$	$\sigma_{\infty.a}$	P.E.$_{\infty.a}$
1	6 tests per year-group (complete Stanford-Binet)	.90	.05	—	—
1½	5 tests per year-group	.88	Values not derived.		
2	4 tests per year-group	.87			
2½, 3	3 tests per year-group	.82	.07	.07	.04
3½, 4	2 tests per year-group	.75	.09	.08	.05
4½	1 test per year-group	.60	.13	.10	.07
5	¾ test per year-group	.53	.15	.11	.07
5½	½ test per year-group	.43	.18	.12	.09
6	1/6 test per year-group	.20	.31	.14	.10
6½	1/12 test per year-group	.11	.45	.15	.10
7	0 test per year-group	.00	∞	∞	Variable*

* The P.E.$_{\infty.a}$ when the reliability coefficient of the data is .00, is obtained by the formulas:

P.E.$_{\infty.a}$ = .6745 $\sigma_{\infty.a}$ and

$\sigma_{\infty.a} = \sqrt{\sigma^2_{dist.} + D^2}$ where $\sigma_{dist.} = 16$

and D = guessed or estimated score minus $M_{dist.}$

($M_{dist.} = 100$) P.E.$_{\infty.a}$ when rel. coeff. of data is .00

Estimated IQ score	100	105	110	115	120	125†
$\sigma_{\infty.a}$	16	17	19	22	26	30
P.E.$_{\infty.a}$	11	11	13	15	17	20

†(No IQ's were estimated above 125 on data whose reliability coefficient is as low as .00.)

cients of the corresponding abbreviated Stanford-Binet tests by the Spearman-Brown formula,[1] with the value .90[2] accepted as the reliability of IQ's obtained from the complete test. The reliability coefficients of the data indexed at each of the seven grade levels are entered in Table 18.

[1] The Spearman-Brown formula: $r_{nN} = \frac{n\, r_{1I}}{1 + (n-1)\, r_{1I}}$

In this case n and N represent the various abbreviated forms of the Stanford-Binet Scale and r_{1I} the reliability (.90) of IQ's determined from unabbreviated Stanford-Binet tests.

[2] The reliability of IQ's determined from the Stanford-Binet Scale (6 tests per year group) has been estimated at .90 by Otis and Knollin. (Otis, A. S., and Knollin, H. E. "Reliability of the Binet Scale and

(3) The P.E's of the IQ scores obtained from material having a given reliability coefficient have been derived by a method suggested by Dr. Kelley.[1] The value of the P.E. of a

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Pedagogical Scales," *Journal of Educational Research*, Vol. IV, 1921, pp. 121–142.) As Herring has more recently shown, the reliability coefficient of the Stanford-Binet for unselected children of a single age (age 12) is much higher than this and perhaps nearer .98. (Herring, John P. "Reliability of the Stanford and the Herring Revisions of the Binet-Simon Tests," *Journal of Educational Psychology*, Vol. XV, pp. 217–223.)

[1] Method of deriving the P.E. of IQ scores on abbreviated tests. $\sigma_{a.\infty}$ = the standard deviation of an array of single test scores corresponding to a given true score. (Cf. Kelley, p. 222.) $\sigma_{\infty.a}$ = standard error of estimate of a true score by means of a single score of the same function. (Cf. Kelley, p. 215.)

$$\sigma_{\infty.a} = \sigma_{a.\infty}\sqrt{r_{aA}}$$

$$\text{and } \sigma_{a.\infty} = \frac{\sigma_1\sqrt{1-r_{11}}}{\sqrt{a}}$$

where $\sigma_1 = 16$ (σ of distribution of Stanford-Binet scores).

$r_{11} = .90$ (rel. coeff. of IQ's from Stanford-Binet test).

$a = \frac{1}{2}, 1/3$, etc., of abbreviated Stanford-Binet tests

$$\sigma_{\substack{A.\infty \\ \text{score}}} = \sigma_{\text{dist.}A}\sqrt{1-r_{aA}}$$

$$\sigma_{A\,\infty} = \sigma_A\sqrt{1-r^2_{A\,\infty}}$$

$$\sigma_{A.\infty} = \sigma_A\sqrt{1-r_{aA}} = \sqrt{\sigma^2_A - \sigma^2_A r_{aA}}$$

$$\sigma_{\infty} = \sigma_A\sqrt{r_{aA}} = \sqrt{\sigma^2_A r_{aA}}$$

$$\sigma_a = \frac{\sigma_\infty}{\sqrt{r_{aA}}} = \frac{\sigma_\infty}{\sqrt{\dfrac{a\,r_{11}}{1+(a-1)r_{11}}}}$$

$$\sigma_a = \frac{\sigma_1\sqrt{r_{11}}}{\sqrt{\dfrac{a\,r_{11}}{1+(a-1)r_{11}}}} = \frac{16.41\sqrt{.90}}{\sqrt{\dfrac{a\,.90}{1+(a-1)\,.90}}}$$

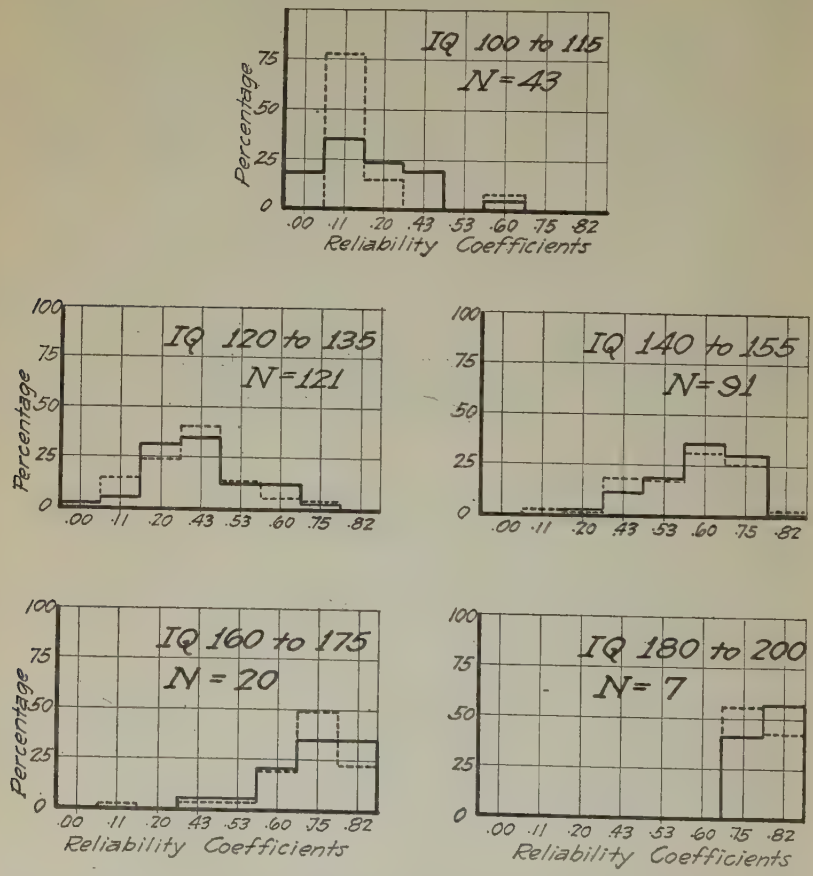
$$\sigma_{a.\infty} = \sigma_1\sqrt{r_{11}} \quad \sqrt{1+(a-1)r_{11}} \quad \sqrt{1-\frac{a\,r_{11}}{1+(a-1)r_{11}}}$$

$$= \frac{\sigma_1\sqrt{1+(a-1)r_{11}}}{\sqrt{a}} \quad \frac{\sqrt{1+(a-1)r_{11}-a\,r_{11}}}{\sqrt{1+(a-1)r_{11}}}$$

$$= \frac{\sigma_1\sqrt{1-r_{11}}}{\sqrt{a}}$$

FIGURE 7

DISTRIBUTION OF RELIABILITY COEFFICIENTS OF DATA UPON WHICH AI AND AII IQ ESTIMATES OF 282 YOUNG GENIUSES WERE BASED (THE CASES ARE GROUPED ACCORDING TO THE HEIGHT OF THE IQ ESTIMATES)



score made on a complete Stanford-Binet test is 3.5 IQ points. For abbreviated forms of the scale the P.E. increases as the reliability of the test scale decreases. The values obtained are entered in the last column of Table 18 (see p. 76). They range from four IQ points (rel. coeff. of data, .82) to ten IQ points (rel. coeff. of data, .11).

The Dependence of the IQ Rating on the Reliability of the Data

From Tables 8 and 9 it appeared that in general and for the whole group there was a definite correlation between the size of the estimated IQ and the size of the reliability coefficient for the data upon which the rating was based. The correlation between the AII IQ and the reliability of the data is .77±.02. (With the order of eminence constant it is .76±.02; i.e., the eminence factor is comparatively negligible.)[1] This is a high degree of correlation, indicating a definite positive relationship. Since the reliability of the data varies from .00 to .82, and the IQ tends to vary with it, IQ's are significant only when the reliability is taken into account.

When the AI and AII ratings of the members of Group A have been distributed according to (1) the reliability of the data, (2) the IQ, and (3) the century of birth of the subjects included (see Table 19, p. 80), the following results appear: (1) The average reliability of the data increases from each hundred-year period to the next, and with the reliability the IQ estimate regularly increases. (2) The IQ values within the hundred-year groups are regularly proportional to the reliability of the data upon which they are based. (3) When the IQ ratings of one hundred-year period are compared with those of another, with the reliability constant, the variations are slight. Small groups may show considerable variation, but in general when the reliability coefficients of the data are constant, and the groups sizable, the four estimated mean IQ's are within a range of ten points.

From Table 47 (pp. 196 f.) it appears that somewhat larger deviations are found between groups of individuals arranged according to profession, even when equally reliable data are available. The differences between these groups are greater than the differences between the groups of individuals in each of the hundred-year periods. They may indicate real differences in IQ between the professional groups.

Conclusions as to Constant Error in the Ratings

(1) From the correlations obtained and from the indications of Table 19 it is possible to conclude (*a*) that in general

[1] But see also p. 55 above.

TABLE 19

IQ Estimates Grouped by Hundred-Year Periods and by the Reliability of the Data upon Which the IQ Is Based

AI rel. coeff.	1450 to 1549			1550 to 1649			1650 to 1749			1750 to 1849		
	IQ	Per cent of cases	Freq.	IQ	Per cent of cases	Freq.	IQ	Per cent of cases	Freq.	IQ	Per cent of cases	Freq.
.00	107	11.1	3				115	3.8	3	108	1.7	2
.11	119	25.9	7	111	12.1	7	118	5.1	4	108	4.2	5
.20	124	22.2	6	124	34.5	20	120	15.2	12	123	10.2	12
.43	137	25.9	7	130	24.1	14	129	29.1	23	127	15.3	18
.00 to .43	124	85.1	23	124	70.7	41	124	53.2	42	122	31.4	37
.53	148	7.5	2	141	13.8	8	143	13.9	11	130	8.5	10
.60	140	3.7	1	148	8.6	5	141	22.8	18	142	25.4	30
.75	160	3.7	1	174	6.9	4	158	5.1	4	148	27.1	32
.82							175	5.1	4	169	7.6	9
.53 to .82	149	14.9	4	151	29.3	17	147	46.8	37	146	68.6	81
Total	128 (Ave. rel. coeff. of data, .27)	100.0	27	132 (Ave. rel. coeff. of data, .36)	100.0	58	135 (Ave. rel. coeff. of data, .45)	100.0	79	138 (Ave. rel. coeff. of data, .55)	100.0	118
AII												
.00 to .43	137	70.3	19	133	62.1	36	129	32.9	26	128	20.3	24
.53 to .82	150	29.7	8	158	37.9	22	151	67.1	53	153	79.7	94
Total	141 (Ave. rel. coeff. of data, .39)	100.0	27	142 (Ave. rel. coeff. of data, .43)	100.0	58	144 (Ave. rel. coeff. of data, .53)	100.0	79	148 (Ave. rel. coeff. of data, .62)	100.0	118

the more reliable the data the higher the IQ. The converse of this conclusion is also warranted, (*b*) that in general the higher the IQ the more reliable the data upon which it is based.

(2) We may conclude further (*a*) that more reliable data would in general form a basis for higher IQ ratings throughout the study. As none of the reliability coefficients are above .82, it appears (*b*) that all of the IQ ratings are probably too low. The size of the reliability coefficient is in general an index of the extent to which the IQ has been underestimated.

(3) Hence it appears (*a*) that the highest IQ's in the group are somewhat too low, while many of the lowest may be much too low, and (*b*) that the *true* IQ for the group, whether measured by its mean or its distribution, is distinctly above the estimated ratings of this study, since the estimated ratings are dependent upon data whose unreliability introduces a constant reduction of the estimated IQ from its true value.

A Corrected IQ Estimate

The raters interpreted their instructions, as it was intended that they should do, to mean that each record was to be evaluated on its own merits without reference to the later career of the individual in question; that is, each subject rated was regarded as a member of a normally distributed unselected group whose average IQ is 100. When the data were insufficient the raters regressed toward the 100 IQ mean (the mean for unselected cases in an average population). From the results it appears that this procedure introduced a large error, for even the *two obtained averages* are (AI) 135 (rel. coeff. of data, .46) and (AII) 145 (rel. coeff. of data, .54), both of which are far above the mean for the generality (100 IQ). The two obtained averages do not, then, represent true, but, rather, regressed values, means of constantly regressed IQ estimates. A correction of the error resulting from (1) the unreliability of the data and (2) the consequent regression to a mean which is not the mean of the group concerned, may be estimated, and corrected IQ's obtained which will indicate more nearly than the original estimates the true IQ scores of this group. Be-

cause the obtained averages of 135 and 145 are evidently nearer the true average than was the common mean, 100, group corrections may be made by calculating the group score that would be found were the data more adequate and regressed toward the obtained means; i.e., toward AI 135 and AII 145.

The proposed correction (Formula *a*)[1] takes into account both of the sources of error noted above, but since the given means (AI 135, and AII 145, and other group means) toward which we propose now to regress, are themselves dependent on values regressed toward 100, it is clear that even the corrected estimates are probably below the true IQ's for the groups.

The proposed values for Mn[2] might be used (1) for all subgroups (by nationality, by century, by field, or profession), and (2) in individual cases. But a scrutiny of certain group and individual scores indicates that this would tend in some instances to obscure true differences, to increase low IQ's to too great an extent, and similarly to decrease high IQ's. Therefore, while the IQ averages for the whole group (A) and for the nationality and the century subgroups, which are presumably similar in their selection, are regressed to the obtained means (AI 135 and AII 145), the subgroups (by profession or field) are regressed to the means obtained for these groups and each individual score is corrected by regression to the mean of the (professional) group to which it belongs.[3] The fact is not overlooked that

[1] Formula *a*. Correction by regression toward a given mean. (Method suggested by Dr. Kelley.)

Let IQ_1 = obtained individual IQ score (estimate).

And $\overline{IQ}_1$ = corrected mean IQ score (estimate).

And rel. = rel. coeff. of IQ_1.

And $Mn_1 - 100 = D_{Mn}$ where Mn_1 = given mean.

Then $IQ_1 + D_{Mn}(1 - \text{rel.}) = \overline{IQ}_1$ (Formula *a*).

This correction adds to the obtained score the increment which it would have received had the estimate been made on the basis of the mean Mn instead of the mean 100.

[2] The averages AI 135 and AII 145 of the obtained IQ estimates (Group A).

[3] E.g., the mean for the group of Philosophers is 145 (rel. coeff. of data, .53); the corrected estimate is calculated from these figures instead of from the AI mean. Similarly Descartes's rating is corrected by regression to the mean for the group of Philosophers instead of to the mean of Group A.

the correction obtained by the substitution of values that are themselves too low is not entirely adequate. The resultant approximations are probably in most cases still too low, and, perhaps, in a few cases, a trifle too high. The final correction is thus no more than an *approximation* to a true score.

TABLE 20 A

OBTAINED AND CORRECTED AI IQ ESTIMATES FOR CERTAIN GROUPS
[Corrections by Formula a: $\overline{IQ}_1 = IQ_1 + D_{Mn}\,(1 - \text{rel.})$]

Group	Obtained AI IQ IQ_1	Rel. coeff. of data r	D	1–r	(1–r)D	Corrected AI IQ $\overline{IQ}_1$
Ave. of Group A	135	.46	35	.54	19	155
French	135	.44	35	.56	20	155
German	140	.54	35	.46	16	155
English	135	.49	35	.51	18	155
American	133	.52	35	.48	17	150
Others	131	.34	35	.66	23	155
1450–1549	128	.27	35	.73	26	155
1550–1649	132	.36	35	.64	22	155
1650–1749	135	.45	35	.55	19	155
1750–1849	138	.55	35	.45	16	155
Artists	122	.23	22	.77	17	140
Writers (PND)	141	.57	41	.43	18	160
Musicians	130	.45	30	.55	16	145
Writers (EHCS)	139	.51	39	.49	19	160
Soldiers	115	.27	15	.73	11	125
Scientists	135	.46	35	.54	19	155
Philosophers	147	.53	47	.47	22	170
Revolutionary Statesmen	140	.49	40	.51	20	160
Religious Leaders	132	.42	32	.58	19	150
Statesmen	135	.47	35	.53	19	155
Highest IQ's	175	.75	35	.25	9	185
Lowest IQ's	113	.20	35	.80	28	140
First Ten	145	.60	35	.40	14	160
Last Ten	143	.60	35	.40	14	155
First Fifty	142	.53	35	.47	16	160
Last Fifty	133	.43	35	.57	20	165

It is probable that more significant differences would appear between the corrected groups if finer distinctions had been possible in the original reliability ratings. Because of the crudeness of the scale used for rating the reliability of

the data, differences between groups tend to remain obscured in the corrected IQ estimates. But the purpose of the corrected estimates is not to furnish exact values for the score of an individual or even of a group. It is rather to indicate the region of the IQ scale in which may be found

TABLE 20 B

OBTAINED AND CORRECTED AII IQ ESTIMATES FOR CERTAIN GROUPS
(Corrections as in Table 20A)

Group	Obtained AII IQ IQ_1	Rel. coeff. of data r	D	1–r	(1–r) D	Corrected AII IQ $\overline{IQ}_1$
Ave. Group A	145	.54	45	.46	21	165
French	151	.52	45	.48	22	175
German	153	.62	45	.38	17	170
English	143	.53	45	.47	21	165
American	142	.64	45	.36	16	160
Others	133	.46	45	.54	24	155
1450–1549	141	.39	45	.61	27	170
1550–1649	142	.43	45	.57	26	170
1650–1749	144	.53	45	.47	21	165
1750–1849	148	.62	45	.38	17	165
Artists	135	.32	35	.68	24	160
Writers (PND)	149	.64	49	.36	18	165
Musicians	140	.50	40	.50	20	160
Writers (EHCS)	148	.59	48	.41	20	170
Soldiers	125	.33	25	.67	17	140
Scientists	152	.59	52	.41	21	175
Philosophers	156	.59	56	.41	23	180
Revolutionary Statesmen	144	.50	44	.50	22	165
Religious Leaders	145	.50	45	.50	23	170
Statesmen	142	.50	42	.50	21	165
Highest IQ's	185	.82	45	.18	8	195
Lowest IQ's	123	.43	45	.57	26	150
First Ten	163	.75	45	.25	11	175
Last Ten	150	.60	45	.40	18	170
First Fifty	152	.60	45	.40	18	170
Last Fifty	142	.51	45	.49	22	165

the true IQ's of the subjects of the study. The fact that the AI and the AII ratings of the nationalities and of the four hundred-year periods show consistent internal agreement, while the corrected estimates (probably too low) for the

Philosophers exceed those of all other groups except the Highest IQ's (also doubtless too low) on combined AI and AII ratings, is an indication of the validity of the method.

The result of the correction indicates that the true IQ's of the subjects of this study average above 160. It further indicates that many of the true IQ's are above 180, while but few of them are below 140. Analysis of the data from which our first estimated IQ's were obtained and careful re-examination of the original items in the case studies offer no contradiction to these findings.

CHAPTER VI

DISCUSSION AND ANALYSIS OF THE IQ RATINGS

Introductory statement. In this and the three succeeding chapters the data upon which AI and AII IQ estimates[1] were based are discussed and analyzed for each of the successive IQ levels. Representative cases are outlined with their characteristic items. Cases in which the ratings do not agree are also considered. The discussion includes further many typical illustrations from the standards of reference of which the raters made use. The abbreviated case studies of Part II furnish further illustrative data.

For comparative study in connection with the diagnosis, vocational guidance, and education of gifted children today, the items recorded of the childhood and youth of the great seem of unusual significance. If the childhood IQ of a Faraday was possibly no higher than 150, and of an Alexander Hamilton no higher than 140, why are not more such scientific or political-financial geniuses produced from the considerable number of cases now rating as high or higher? Are some of the factors other than intelligence that make for high achievement failing of utilization, either through lack of industry or application on the part of the individuals themselves or through lack of education and opportunity because of the neglect of others? Or are our obtained intelligence ratings far too low, so that the comparison is not a fair one?[2]

In the discussion in Chapters VI to X inclusive the intelligence factor alone is considered. A discussion of the recorded facts upon which an AI IQ rating depends is followed in each case by a similar discussion of the AII IQ ratings at the same level. As individuals are infrequently rated equally on the AI and AII, the illustrative cases for the two

[1] The AI rating is the average of the judgments of the three raters T, M, and C, of the intelligence of the subject as recorded for the period to the 17th birthday. The AII is a similar average for the period to the 26th birthday. (See Chapter V.)

[2] See above, Chapter V.

groups are seldom the same individuals. The AI ratings are discussed at greater length than the AII, as the norms for the early years are more satisfactorily established and the ratings are therefore more reliable. In Chapters XI and XII elements of character other than intelligence are discussed, some of which were undoubtedly factors in the great achievement of our subjects in later life. The following pages present a discussion of cases rated at successive IQ levels from 100 to 200.

AI IQ 100[1]

Three cases are rated at AI IQ 100. The reliability coefficients of the data on which the estimates are made are respectively .43, .11, and .11. The information in each case is meager. In one case it is also contradictory as reported, although not necessarily contradictory in fact. The rating of 100 is due to lack of definite items upon which a reliable rating may be based. For example, we are told that Masséna

TABLE 21

GROUP OF CASES RATED (AI) IQ 100

	AI	Rel. coeff.[a] of data	AII	Rel. Coeff. of data
La Fontaine	100 ± 8	.43	125 ± 8	.43
Masséna	100 ± 10	.11	105 ± 10	.11
Vauban	100 ± 10	.11	125 ± 8	.43
Ave. for 3 cases	100 ± 9	.22	120 ± 9	.32

[a] The reliability coefficient is a measure of the adequacy of the records in serving as a basis for an intelligence rating. (See Chapter V.)

was an orphan from his infancy, and that he embarked as a cabin boy on a battleship commanded by one of his uncles. On this ship he made two long voyages; but he did not care much for the sea. Nephews of battleship commanders probably rate somewhat above 100 IQ; but cabin boys who remain cabin boys for two long voyages and of whom there is nothing more to report until the age of 17 than their service as cabin boys, may average below 100 IQ. The evidence for

[1] A detailed discussion of the group of cases whose AI IQ is estimated at a given level is followed by a brief discussion of a single case from the group whose AII IQ falls at the same level.

the other two cases is similarly baffling. Even the family standing is of such a character, or is so defined, as to afford a basis for nothing more than an average rating. Such as it is, the evidence indicates the improbability of any member of the group having had an IQ below the upper border of moronity (IQ 70). It indicates further that the upper limit for two of the cases (Masséna and La Fontaine) was probably not higher than 140 IQ, the third (Vauban) not higher than 160.

The obtained average AII ratings on each of the three cases (125, 105, 125) is based on scarcely more adequate data than the AI. They show that the AI was not too high and suggest that both AI and AII are lower than the true IQ's of these subjects because information about the early lives is incomplete. At the same time the records indicate that these three eminent persons did not possess the highest ability found in Group A (cf. the corrected estimate—on the basis of the records—of 125, 140, 155 IQ). The AII is estimated on records for a period when many of the eminent men in Group A are producing valuable work and receiving general recognition. It is perhaps significant that La Fontaine, who was not deterred from production by untoward events, published his first work at the age of 33; was first generally recognized after he was 38, and was elected to the French Academy at 63. Masséna was undistinguished until he became, at 35, a general in the French Revolution. Thereafter he received the highest military honors; a marshal at 46, he was appointed territorial commandant at 55. Although Vauban's ability was recognized as early as his 27th year, his first publication did not appear until he was 36, and he was appointed a marshal of France at the advanced age of 70. In other words, these men, of whose youth so little is reported, achieved eminence, but they achieved it comparatively late. The character and the amount of the evidence with respect to their youth suggest that the estimated IQ is too low; that an IQ based on more adequate data would be higher, but not as high as that of many other individuals included in this study.

AII IQ 100

(No cases)

AI IQ 105

The ten AI IQ ratings of 105 are based upon data varying in reliability from .00 to .20 (average rel. coeff. of data, .08). The evidence for these cases is no more satisfactory for our purpose than was that for the three cases estimated at 100 IQ. What is the basis for a higher rating? The record of Bunyan's early years will serve as an example. One rater (T) has estimated Bunyan's IQ at 110, while the others give

TABLE 22

GROUP OF CASES RATED (AI) IQ 105

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Bunyan	105 ± 10	.11	120 ± 9	.20
Cervantes	105 ± 11	.00	110 ± 10	.11
Cobbett	105 ± 9	.20	125 ± 8	.43
Cook	105 ± 9	.20	115 ± 10	.11
Copernicus	105 ± 10	.11	130 ± 8	.43
Drake	105 ± 11	.00	110 ± 10	.11
Faraday	105 ± 10	.11	150 ± 7	.60
Mehemet Ali	105 ± 11	.00	110 ± 10	.11
Poussin	105 ± 10	.11	115 ± 10	.11
St. Cyr	105 ± 10	.11	115 ± 10	.11
Ave. for 10 cases	105 ± 10	.08	120 ± 9	.23

the more conservative rating of 100. Bunyan's father was a brazier or tinker, but a tinker of recognized position in the village; and the mother was not of the squalid poor, but of people who were "decent and worthy in their ways." This would be sufficient evidence for a rating between 90 and 100. But the record goes further, and we read that notwithstanding their "meanness and inconsiderableness," Bunyan's parents put their boy to school to learn "both to read and to write," which probably indicates that he showed something more than the promise of a future tinker. A rating of 105 is probably not too high an estimate of the IQ of such a youth under such circumstances.

In the case of St. Cyr, whose IQ one rater (C) has estimated at 115, while the others have judged it 100, we have a record equally brief. The father was a tanner after having been a butcher, which would give his son an occupational

IQ status of 90 to 100; but two distant relatives had achieved signal martial honors, thus indicating a higher strain in the family. The boy was reared with some care. Although his family desired him to enter upon a military career, the youth had independent interests which led him to the arts. He learned designing without much study, and soon found in his "slight talent" the means for subsistence which his family lacked. He left his literary studies in order to take lessons in drawing. Independence of decision, financial success at an early age, and the character of his interests indicate something more than 100 IQ. The estimated average of 105 does not seem too high in this case.

The case of Faraday is perhaps of greatest interest because of the AII 150. Two raters (T and C) estimate the IQ at 110, the third (M) at 100. The parental standing is comparable to the other two cases discussed above (i.e., IQ 90 to 100). Faraday was educated at a common day-school, where he learned little more than the Three R's. To this indistinctive record of school attendance, nothing significant for rating the IQ is added by the further report of Faraday's out-of-school activities and his apprenticeship as errand boy to a bookseller (where he was "faithful" in service and regular in his habits). But the record contains a bit of characterization: "he was a great questioner when young," he discovered that it is "fact" alone that one can "trust," and he always "cross-examined an assertion." In connection with reported stability and dependability the youth so characterized should probably be rated above 100 even if corroborative or detailed evidence of his activities is lacking.

The lower limit for these ten cases, on the basis of the evidence, is perhaps somewhat higher than for the previous group. It may safely be placed at IQ 85.

The AII ratings of the same cases again indicate the effect on the AI IQ's of the error introduced by the incompleteness of the data. The upper limit for a group containing Faraday, Cervantes, and Copernicus may be near 180. Faraday, after serving three years as Davy's laboratory assistant, began to lecture on chemistry before the city philosophical society; he was not yet 25. At 24 or 25 he made his first contribution to science, an analysis of caustic lime. At 30 he

made his first notable discovery—the rotation of a magnetic needle around an electric current. At 31 he was made a corresponding member of the French Academy of Sciences. Cervantes' first published poems appeared when he was 22. After thirteen years of strenuous military service, he devoted himself, with success, to the drama. Copernicus was engaged in university study at home and abroad until he was 30. His first recorded astronomical observations were made when he was 24. At 26 he became Doctor of Medicine and Philosophy and at 30 Doctor of Canon Law.

The ten youths are probably rated with fair accuracy at 105 on the basis of the evidence, whose reliability for the present purpose is, because of its brevity, very low. It is perhaps safe to state that the additional data which would afford a more reliable basis for rating would consistently raise the IQ estimate. The AII ratings of the same cases tend to confirm this view.

AII IQ 105

(One case. Reliability coefficient of data, .11.)

The single case whose AII rating is 105 is Masséna (AI 100±10). This youth, having served as cabin boy until he was 17, enlisted at that age in the Royal Italian Regiment. He rose quickly to the rank of under-officer (adjutant). Further progress was prevented by reason of his humble birth. The rating of 105 indicates that the evidence warrants something more than an average, or 100 IQ, rating. How much more one can only guess.

AI IQ 110

The average occupational rating of the fathers of the twenty subjects in this group is Taussig 2.3; i.e., nearer the mean for the semiprofessional than for the skilled-workmen's group. If the IQ were in every case estimated from the father's standing alone, this would entitle the group as a whole to a guessed rating between 105 and 110. The contribution of the parental standing to the IQ judgment may be illustrated by four cases. Clive's father was "a lawyer of ancient family and some property." (Taussig 1.) A mean

Taussig 1 rating may be assumed to imply a mean IQ of 120. But of Clive himself we hear that "at school he made little progress in study, was noted for his fiery passions and propensity for mischief." And this statement completes the evidence. This youth is to be rated as one whose parental standing entitles him to a guessed rating of 120, but whose

TABLE 23

GROUP OF CASES RATED (AI) IQ 110

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Alberoni	110 ± 9	.20	110 ± 10	.11
Blücher	110 ± 13	.00	125 ± 9	.20
Clive	110 ± 9	.20	120 ± 9	.20
Cromwell	110 ± 9	.20	115 ± 9	.20
Fox, G.	110 ± 8	.43	120 ± 9	.20
Gluck	110 ± 9	.20	115 ± 9	.20
Grant	110 ± 7	.60	125 ± 5	.75
Hogarth	110 ± 10	.11	115 ± 10	.11
Hunter	110 ± 8	.43	130 ± 8	.43
Jackson	110 ± 8	.43	130 ± 8	.43
Jansen	110 ± 9	.20	140 ± 7	.53
Monk	110 ± 10	.11	120 ± 10	.11
Moreau	110 ± 13	.00	125 ± 9	.20
Murillo	110 ± 10	.11	120 ± 10	.11
Ney	110 ± 8	.43	120 ± 8	.43
Palestrina	110 ± 13	.00	120 ± 10	.11
Raphael	110 ± 10	.11	150 ± 8	.43
Rembrandt	110 ± 9	.20	135 ± 8	.43
Wallenstein	110 ± 10	.11	115 ± 10	.11
Ave. for 19 cases	110 ± 10	.22	125 ± 9	.29

reported performance, to age 17, indicates the possibility of somewhat less ability than his parental standing implies. The three ratings (T 120, M 100, C 110) illustrate three possible interpretations of the evidence. T rates on parental standing, M regards the evidence as contradictory or insufficient, C's analysis is approximately that outlined above. The average IQ of 110 is perhaps a fair estimate of the case. Cromwell is also entitled to a guessed rating of 120 on parental standing. The evidence as to his school progress is conflicting and seems to indicate something less than the intellectual ability to which his parental standing entitles

him. The three raters agree in scoring Cromwell at IQ 110. Moreau's parental rating is also 120. (Moreau is one of three cases of .00 reliability in this group.) Evidence with reference to his development to age 17 is lacking. The raters differ as to the amount of weight to be assigned to the single datum. (T 115, M 100, C 110.) The average of 110 is probably not too high. The cases of Wallenstein (T 110, M 100, C 120) and Blücher (T 115, M 100, C 115) are similar.

The most reliable evidence for a single case at 110 IQ is that for Grant (rel. coeff. of data, .60) while the data for George Fox, Hunter, Jackson, and Ney have a reliability of .43. In other words, should new and complete evidence become available, and a new rating be made from it, these five cases, and Grant in particular, would be expected to show less change in IQ from the old ratings, based on few data, to the new ones, based on many, than would the other fourteen; and a true IQ for these five would presumably approximate the present estimate more closely than a true IQ for the other fourteen would approximate their present rating.

The report on Grant is sufficiently complete to afford a fair study of a youth whose IQ is estimated at 110. (T 115, M 100, C 115.) Parental standing in this case cannot be lower than 110 and may be higher. The boy's interests were genuine and lasting, but they were not intellectual. He took part in the usual farm activities with energy and aptitude. At school he was an average pupil. His practical ability was considerable; evidence of analytical power is wholly lacking. The report is sufficiently complete, and is of such a nature, as to suggest that highly significant data are not omitted. In proportion to other cases in the study, the true IQ of this one cannot be expected to rate unusually high. The AII rating of 125, with a reliability of .75, corroborates this interpretation.

A rating for George Fox is difficult to make because of the nature of his development. The relation of religious conviction to intelligence is unknown, while production and achievement do not appear in this case until after age 17. In the case of Hunter the evidence is somewhat contradictory. We seem to be dealing with superior ability that has not found itself; but, for want of data, the rater can only regress to 110. The cases of Ney and Jackson resemble that

of Grant; the nature of the intelligence displayed is not dissimilar. Ney, as he is reported, is a shade the most able of the three. At 16 "he was offered the superintendency of the forges of Saleck." This demonstrates practical ability above the average for youths of 16, but it is no indication of high intelligence. (Ney's AII is 120.)

The lower limit for the 110 group cannot well be less than 100. There is evidence in each case of average ability, at least, during childhood. The upper limit may well depend on Raphael whose first great work was painted when he was 20. At 31, having already produced many of his greatest masterpieces, he was appointed chief architect of St. Peter's. In the seventeen or eighteen years of his active career, terminated by his death at 37, "he passed through stages of development for which a century would not have seemed too long." His achievement before the age of 26 gives Raphael an AII of 150 (rel. coeff. of data, .43). We know far too little of the relation of intelligence to powers of artistic discrimination and interpretation to venture a guess as to this youth's actual IQ. His precocious power as an interpreter of human character and emotion, his originality in conception, and his versatility in execution, will not permit a lower IQ limit for his group than 175 or 180. His AII rating is 150, but the estimate of one of the raters (M) is 175.

AII IQ 110

(Four cases. Average reliability coefficient of data, .11.)

The typical case of Drake will illustrate the intellectual caliber of the four youths whose AII IQ is estimated at 110. Drake at 18 was made purser or third officer of a ship trading to Biscay. From 22 to 24 he commanded the "Judith" in a slave trading expedition. Nothing else of significance is reported. The record as it stands indicates a degree of activity and initiative on the part of young Drake that entitles him to no less than the average rating for graduates of a present-day standard high school.

AI IQ 115

The eleven cases included in this group are rated on material having an average reliability of .24, and a relia-

bility range from .00 to .60. The least reliable case, Necker (rel. coeff. of data, .00), is entitled by parental standing to a guessed IQ of 120—his father was a university professor of law. Aside from this item we know only that at 15, and apparently with the approval of the family, young Necker went alone to Paris to enter upon a business career. The evidence, as recorded, places the boy above the average. He

TABLE 24

GROUP OF CASES RATED (AI) IQ 115

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Béranger	115 ± 8	.43	130 ± 7	.53
Bernadotte	115 ± 9	.20	120 ± 9	.20
Cortez	115 ± 8	.43	120 ± 9	.20
Goldsmith	115 ± 7	.60	115 ± 7	.60
L'Hôpital	115 ± 10	.11	135 ± 8	.43
Luther	115 ± 10	.11	145 ± 8	.43
Murat	115 ± 10	.11	120 ± 8	.43
Necker	115 ± 15	.00	120 ± 10	.11
Soult	115 ± 10	.11	130 ± 9	.20
Swedenborg	115 ± 10	.11	145 ± 7	.53
Warburton	115 ± 8	.43	130 ± 8	.43
Ave. for 11 cases	115 ± 10	.24	125 ± 8	.37

may be his father's equal and so belong to the group whose average IQ is 120. There is nothing to indicate that he is not, but there is insufficient evidence for a reliable rating indicating that he is. The average score of 115 is probably none too high. Six other cases are rated in a similar manner on the basis of parental standing (averaging IQ 120) checked by some corroborative evidence. A number of examples will illustrate the character of the data on achievement. It is reported of L'Hôpital that he was sent "when he was old enough," and before he was 18, to study law. Soult was fairly well educated. He was intended for the bar, but preferred the army, which he entered at 16. Murat, whose parental standing is perhaps not more than 110, was given a scholarship before he was 11 and did sufficiently well in his classical studies to be sent to a theological seminary a few years later. The records for Warburton, Béranger, and

Cortez (rel. coeff. of data, .43) afford more reliable bases for rating; but certain contradictions in each instance make the rater hesitate to venture far above 115.

One verdict for Warburton is 135 (T), indicating that we are entering here upon the border line of decidedly superior intelligence. The evidence in the Warburton case perhaps warrants this high estimate. Warburton was remembered by his schoolmaster, it is true, as (before he was 15) "the dullest of all dull scholars." But at 15 he became passionately fond of reading and, in the moments he could snatch from his clerkship, reread the classics and such works as he "understood to be in repute with men of learning and judgment."

Béranger "listened much and said little." He received at least an average education for his social class (Taussig 1); he had an excellent memory, and he was "a questioner." He wrote "verses" at 12 on an original scheme of his own; he knew two epic poems almost by heart before he was 17; he was a leader among his schoolmates; and between 15 and 18, as his father's assistant in a banking house, he had become a "very clever financier." These facts alone should give Béranger an IQ nearer 130 than 115; but these are not all. Until he was 9 he had not learned to read; he preferred to cut little baskets out of cherry pits. At school he "had no expectation of prizes" for he "learned nothing" there. At 11, because he "could not learn Latin," Béranger had to be allowed the privilege of repeating his prayers in the mother tongue. He tried serving as an altar boy, but he mixed the responses and paid so little attention to what he was doing that the priest dismissed him in disgust. Perhaps these contradictions can be explained on other grounds than lack of intelligence. At any rate the IQ of 115 is not too high!

Cortez attended the university at 14 or 15, because his father discovered "talents" in him. He learned something of Latin, and acquired proficiency in writing prose and even verse; but he was not persevering. At 16 he was hindered from joining a military expedition by severe bruises resulting from a fall from a wall which he was scaling in order to keep an appointment with a lady.

These three cases are the first of our study in which fairly reliable data (rel. coeff. of data, .43) definitely report genuine intellectual interest and achievement before the age

of 17. In no one of the three, however, was the interest awakened early; nor was it, in contrast to what is found in other members of our group, of striking depth. But it differentiates these youths sufficiently from others whose interest, perhaps equally strong, was in practical affairs; e.g., Grant, Jackson, Ney, Hunter, and even George Fox.

The most extended record in the group is for Goldsmith (rel. coeff. of data, .60); but here the considerable volume of data fails to provide a stable basis for an IQ rating. The raters disagree. (T 115, M 100, C 135.) On the one hand Goldsmith wrote verses at 7, read Horace and Ovid with delight before he was 9, made a family reputation as a wit before he was 10, and entered the university at 15 (perhaps not far from the usual age in his time). On the other hand, it was stated by his first teacher that "never was so dull a boy"; he was called "a stupid, heavy blockhead" a little later; and at the university he "avoided lectures when he could and was a lounger at the college gate." Perhaps the explanation is that "he seemed to possess two natures"; and perhaps the best rating is that of T, which strikes a mean between the other two ratings and so perhaps between Goldsmith's "two natures." A rating of 115 can scarcely be too high for a university man with intellectual interests who wrote poetry at 7 and was regarded as the wit in a professional man's family, even if his teachers considered him at 7 and 9 slow and dull and even if he was "a lounger" at college. We must remember that he is a poet!

The lower IQ limit for the group cannot be less than 100. The true upper limit is perhaps determined by Swedenborg (AII 145) and Luther (AII 145). Swedenborg took the Ph.D. degree at 21, was distinguished as a mathematician at 27, was appointed assessor extraordinary of the Swedish Board of Mines at 28, published scientific works at 29, and was distinguished for practical inventions at 30. Luther (according to Cattell's list one of the ten most eminent men who ever lived) took the M.A. degree at 22 and became a university professor of philosophy at 25. He had won wide recognition as a religious teacher at 29. At 34 he published his 95 theses. The true upper IQ limit of the group to which these two men belong can scarcely be estimated at less than 180.

AII IQ 115

(Eight cases. Average reliability coefficient of data, .19.)

Illustrative of the AII 115 group is Wallenstein, who served in the imperial army in a humble rank from 16 to 22. At 22 he was appointed officer, and after distinguished service was promoted to a company of infantry. When he was 24 an attempt was made to secure for him an appointment as chamberlain to the Archduke. The record indicates genuine ability of the practical sort; whether it means intelligence of a high grade is not clear.

CHAPTER VII

DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued*

AI IQ 120

The evidence presented by this group is, on the average, scarcely more reliable (.26) than that for the 115 IQ group (.24). However, many of the items presented afford a fairly stable basis for rating. The agreement among the raters is high. In six cases (22 per cent) the agreement is complete. In six others (22 per cent) two raters agree and the third deviates from them by no more than 5 IQ points. There is only one case in which there is wide disagreement—Thiers (T 120, M 100, C 140); and this is the only case where a single individual is rated as high as 140 and as low as 100.

A review of the brief account of Thiers (rel. coeff. of data, .20) suggests that the average rating interprets the data better than does either of the extremes. The family occupational rating is perhaps 110 to 115. The characteristics enumerated for Thiers himself are those of the superior youth: "ceaseless activity," "willingness to work," "an insatiable desire for knowledge," "self-confidence." The scholastic standing reported is superior. "Special attention to mathematics" is mentioned in connection with preparation for a military career. Without further confirmation, 120 is probably as high a rating as should be ventured. It is certainly not too high.

At IQ 110 the ratings were largely on the basis of family standing more or less qualified by personal characterization. At IQ 115 the qualifications had become a considerable determinant. At IQ 120 the family standing (while in most cases corroborative) has receded into the background, while evidence of a new and perhaps more convincing nature is decisive—the standing of the youth himself, his membership in a particular school group or its equivalent in home training. The information available for this group warrants for any of its members an IQ rating equal to the estimated level

of the average college or university undergraduate student of our own day, i.e., IQ 120.

Typical examples belonging to the group under discussion, that have been rated on the basis of collegiate standing, are included among the cases discussed in the following paragraph.

TABLE 25

GROUP OF CASES RATED (AI) IQ 120

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Adams, J.	120 ± 9	.20	145 ± 5	.75
Ali Weli Zade	120 ± 17	.00	120 ± 10	.11
Atterbury	120 ± 8	.43	150 ± 7	.60
Berzelius	120 ± 7	.53	140 ± 7	.60
Cobden	120 ± 7	.53	120 ± 9	.20
Cranmer	120 ± 9	.20	130 ± 9	.20
De Foe	120 ± 9	.20	125 ± 9	.20
Dupin	120 ± 9	.20	140 ± 7	.53
Farragut	120 ± 8	.43	120 ± 8	.43
Fielding	120 ± 9	.20	135 ± 8	.43
Garibaldi	120 ± 8	.43	125 ± 8	.43
Guicciardini	120 ± 9	.20	140 ± 8	.43
Harvey	120 ± 9	.20	150 ± 8	.43
Haydn	120 ± 8	.43	140 ± 7	.53
Jonson, B.	120 ± 9	.20	145 ± 8	.43
Lavoisier	120 ± 10	.11	150 ± 7	.60
Madison	120 ± 9	.20	135 ± 8	.43
Maintenon	120 ± 9	.20	130 ± 8	.43
Marlborough	120 ± 9	.20	125 ± 9	.20
Reuchlin	120 ± 9	.20	150 ± 7	.60
Richelieu	120 ± 9	.20	135 ± 8	.43
Rossini	120 ± 8	.43	130 ± 7	.60
Scaliger	120 ± 10	.11	155 ± 7	.53
Thiers	120 ± 9	.20	140 ± 7	.53
Van Dyck	120 ± 9	.20	135 ± 8	.43
Wilberforce	120 ± 9	.20	130 ± 8	.43
Wilkes	120 ± 8	.43	125 ± 8	.43
Ave. for 27 cases	120 ± 9	.26	135 ± 8	.44

Cranmer, after a preparatory course, entered the university. By his father's urgent advice, John Adams prepared for the university, where he was distinguished (from 16 to 20) as a scholar in a superior class. It is not clear that this distinction was attained before 17; it can therefore not affect the AI IQ rating. Atterbury was King's Scholar at West-

minster, at that time a very superior university preparatory school. De Foe attended a nonconformist academy in preparation for the ministry. According to the data his attainments were not below the average of his associates. Dupin was taught at home by his father, a university man. He received careful training in preparation for the study of law. Fielding attended Eton, where, according to his father, he displayed "good proficiency in learning." Guicciardini prepared for and began the study of law. Harvey entered Cambridge after a preparatory course at King's School, Canterbury. Cobden, Ben Jonson, Lavoisier, Madison, Maintenon, Reuchlin, Richelieu, Scaliger, Wilberforce, and Wilkes are rated on similar data. Slight deviations among the raters in their estimates of these cases are attributable to differences in weighting slight qualifying statements. Thiers is an extreme instance. In a few other irregular cases evaluation is exceedingly difficult. Ali Weli Zade is entitled by family standing to a guessed IQ of 120. He was a born leader with the ability and graces of a statesman. Before he was 17 his independent study of methods of warfare and of the character and strength of his future opponents prepared him for future successes. "In policy Ali soon became equal, if not superior, to his mother," who was known as a woman of "great ability." Persistence and continuity of policy characterized this clever Albanian youth, the only "professional robber" in our 301 cases. While the reliability of the evidence in Ali's case is .00 because of its vagueness and certain contradictions in dates, the average rating for his social class (IQ 120) is perhaps the best guess. Garibaldi and Farragut were self-made men of activity who gave evidence of intellectual interests which tend to differentiate them from the soldiers who are rated at 110 or 115; both were readers. Marlborough's record tells of superior education and the beginning of an active life of affairs. Haydn, Murillo, and Van Dyck showed their caliber in the character and intensity of their early interests. Each of the three was maintaining himself independently, and with a degree of recognized success, at the age of 16. In the case of Berzelius, who held at 15 or 16 a position as house-tutor to the children of a country gentleman, education and achievement substantiate the inference drawn from

the father's occupational status that a rating of 120 is thoroughly justified.

The true lower limit of this group cannot be less than 105. Its true upper limit may be near 170.

AII IQ 120

(Fifteen cases. Average reliability coefficient of data, .21.)

Cobden, after three years' service as a clerk, accepted, at 18, an offer to enter a Ghent business house. At his father's wish, however, he later gave up the foreign engagement. At 20 he aided in the support of his younger brother. At 21 he was promoted from clerk to "traveller." At 24 he entered business on his own account with two friends. Business ability is here combined with a sense of responsibility and decided initiative. Early and general recognition of his powers corroborates this view. The young man described is probably equal in intelligence to the graduate of a standard college of today.

AI IQ 125

The AI IQ's of 32 cases estimated at 125 are based upon data whose reliability averages .34. The reliability range is from .11 (for a single case, Buffon) to .60 (for two cases, Nelson and Washington). A comparison of the members of this group with those at 120 and 115 indicates that the IQ estimate is directly affected by the amount of information available. The more complete the record the higher the average IQ for any considerable group in our study. In other words, the IQ is, for the most part, low in a given case not because evidence *is* available that sets a definite maximum IQ limit, but rather because sufficient evidence *is not* available to corroborate the highest estimate possible in a given case. More data would afford a basis for higher IQ's, but not uniformly higher. For example, those cases, rated at 125 or lower, whose data as reported afford a fairly high reliability for IQ ratings, indicate a trend in Group A which invites further investigation. Of four cases from AI IQ groups 110 to 125 inclusive, whose data have a reliability of .60, three are soldiers: Grant, AI 110; Nelson, AI 125; and Washington, AI 125. The fourth case is that of Goldsmith, AI 115, whose IQ rating was influenced by contradic-

tions in the evidence. The records for Grant, Washington, and Nelson offer no contradictions. They present evidence clearly descriptive of youths of practical interests, possessing

TABLE 26

GROUP OF CASES RATED (AI) IQ 125

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Addison	125 ± 9	.20	140 ± 7	.53
Ariosto	125 ± 9	.20	135 ± 7	.53
Bach	125 ± 8	.43	140 ± 8	.43
Beza	125 ± 8	.43	140 ± 8	.43
Blake	125 ± 8	.43	130 ± 9	.20
Bolivar	125 ± 9	.20	135 ± 9	.20
Bright	125 ± 7	.53	130 ± 7	.53
Buffon	125 ± 10	.11	130 ± 10	.11
Chesterfield	125 ± 9	.20	135 ± 7	.53
Dryden	125 ± 9	.20	130 ± 8	.43
Dürer	125 ± 9	.20	135 ± 8	.43
Fouché	125 ± 8	.43	130 ± 9	.20
Gay-Lussac	125 ± 9	.20	155 ± 7	.60
Helvetius	125 ± 8	.43	135 ± 8	.43
Jenner	125 ± 8	.43	145 ± 7	.60
Liebig	125 ± 7	.53	165 ± 5	.75
Lincoln	125 ± 8	.43	140 ± 5	.75
Linnæus	125 ± 8	.43	145 ± 7	.60
Locke	125 ± 8	.43	135 ± 8	.43
Malebranche	125 ± 9	.20	135 ± 9	.20
Marmont	125 ± 8	.43	135 ± 8	.43
Napier	125 ± 9	.20	125 ± 10	.11
Nelson	125 ± 7	.60	145 ± 5	.75
Reynolds	125 ± 8	.43	125 ± 8	.43
Sévigné	125 ± 9	.20	135 ± 8	.43
Shaftesbury	125 ± 8	.43	130 ± 9	.20
Sherman	125 ± 9	.20	135 ± 7	.60
Swift	125 ± 8	.43	130 ± 7	.53
Thou	125 ± 9	.20	135 ± 9	.20
Velasquez	125 ± 9	.20	140 ± 9	.20
Walpole	125 ± 8	.43	130 ± 8	.43
Washington	125 ± 7	.60	135 ± 5	.75
Ave. for 32 cases	125 ± 8	.34	135 ± 8	.44

the force of character which brings achievement. Few intellectual tastes or activities are noted, and these are in each case immediately related to definite practical behavior. The estimated IQ of one of these youths is probably nearer the true IQ than is that of a Malebranche, a Napier, or a Thou.

Of the three last named we also know but little, but that little points in the direction of high intellectual interests, and indicates that the practical tastes characteristic of our hyperkinetic youths are here conspicuously absent.

Ratings in the 125 group are fairly stable. In 66 per cent of the cases the range for the three raters is between 120 and 130. Only two ratings are at the lower limit, 110; five are at the upper limit, 140: Bach (M), Liebig (C), Malebranche (M), Swift (T), Velasquez (M).

In the case of Bach the disagreement among the raters resulted from the problem of weighting musical achievement. Although the correlation between musical achievement and intelligence is unknown, 125 appears a safe rating for the Bach of whom we have record. At the same time it is clear that this youth had many of the personal characteristics of the gifted: intensity and continuity of interest, ambition, independence, determination, and perseverance; and these were combined with achievement of a high order in musical composition as well as versatility and excellence in performance.

Liebig is rated IQ 140 by one rater (C) for the same personal characteristics displayed by Bach plus achievement in chemical experimentation, a spirit of scholarly inquiry which led him on his own initiative to thorough and careful perusal of many chemical works before he was 16, and the evidence that older scholars or scientists were impressed by his interest and ability. But his teachers thought him hopeless because he would not study the classics. This item of information is, considering the other reported facts, sufficiently weighted in the AI 125.

In the case of Malebranche the report is somewhat vague and assertion is inadequately supported by statements of concrete fact. Endowed with "one of the keenest intellects the world has ever seen," he "overcame the first difficulties of science with an intellectual ease that was astonishing and which aroused the jealousy of his brothers," who, like himself, are entitled to a guessed rating of 120 on the basis of family standing. Frail in body our Malebranche concerned himself with the things of the spirit. Poetry and oratory seemed frivolous to him at the age of 16 and he turned to philosophy, from which he "expected to learn great truths."

In college at 16 "he found in philosophy nothing of greatness and almost nothing of truth—only subtilty, perpetual equivocation, and play with words." He felt it his duty, however, to apply himself, which he did with success (aged 16 to 18). The AI of 125 does not overrate this case.

Swift is reported to have been able to read any chapter in the Bible at 3 and to have learned to spell at the same age. From 6 to 14 his reported interests were in sport rather than in scholarship. At college (aged 14 to 17) he was more concerned with independent reading than with prescribed study, so that he made a poor showing in the regular course. These data are contradictory, but even so they adequately support an IQ of 125.

Velasquez's IQ on the basis of parental standing alone is 120. His school achievement was distinctly superior. "He betrayed a decided talent for every branch of knowledge." "His quick intelligence gave his parents a lofty idea of his gifts." After an adequate preparatory school training Velasquez began, at 13, the study of art in which he made rapid progress. The data are not sufficiently complete here to warrant a higher rating than AI IQ 125, although the information reported and the AII 140 suggest that the error lowers rather than raises the estimated as compared with the true IQ.

For the most part, the members of this group, like those of the previous one, are rated on (1) parental standing, (2) school attendance, and (3) statements as to individual intellectual interests. Where (1) and (2) alone would place the individual at 120, additional statements qualify him for the higher IQ rating. For example, Jenner (T 125, M 125, C 120), the son of a clergyman, received the usual education of his social rank (IQ 120). "He made a respectable proficiency in the classics" before entering upon a professional course (IQ 120). In addition he had scientific interests. Before he was 9 he made a collection of the nests of the dormouse. A few years later "he spent the hours devoted by the other boys to play or recreation in searching for [oölitic] fossils" (IQ 125).

Locke (T 125, M 125, C 125), the son of an attorney (IQ 120), received his preparatory education at Westminster School (IQ 120), where he was "elected on the foundation"

after indicating his fitness for this honor by his satisfactory work and by passing a stiff examination in Greek, Latin, and grammar (IQ 125).

Helvetius (T 125, M 130, C 125), the son of a physician (IQ 120), was educated at the College of Louis-le-Grand (IQ 120). His education had begun before he was 5 (IQ 125). A taste for reading developed in earliest childhood (IQ 130). From that time "he read much and he knew how to read, how to interpret the texts and to put himself in contact with the greatest minds of both past and present." This is the characterization of a gifted youth (IQ 140). But we hear further that he was not a model pupil. He had periodic colds which made him seem dull; he was not quick in response but "always needed time to collect his thoughts, to analyze, to compare, and to meditate," and "he did not shine at all in the beginning of his studies" (IQ 115). Then he was "discovered" by a brilliant humanist, his teacher, who "knew how to recognize ability," and who from that time "took particular pains with him, aroused his enthusiasm in the classics, and led him to read and criticize the best authors." An IQ nearer 140 than 125 may be suspected here, but the evidence is not sufficient to warrant the higher rating.

The other members of the group present similar evidence of something at least a shade above the average college student. The lower limit of this group is not less than 110 or 115. Its true upper limit is conditioned by such men as Linnæus, who at 30 published his *Genera Plantarum*, which "must be considered the starting point of modern systematic botany"; Gay-Lussac, whose contributions to science entitled him to enter the French Academy of Sciences at 28; and Liebig, who, after becoming professor of chemistry at the unusually precocious age of 23, soon made the University of Giessen the center of attraction to the chemical students of Europe.

AII IQ 125

(Thirteen cases. Average reliability coefficient of data, .36.)

Moreau is a typical example of this group. At 24 he completed his course at the University of Rennes and be-

came *prévôt en droit,* the first rank among law students. The completion of a college course entitles him, when other data are not reported, to a rating of 125 IQ, the estimated average of graduate students in standard American universities.

AI IQ 130

The reliability coefficients for the 21 cases in the 130 group average .39, as compared to the reliability average of .34 at IQ 125. The range is from .11 (Savonarola) to .75 (Burns). The range in individual IQ ratings is from 110 (Burns) (M) to 160 Canova (M). Nine cases (43 per cent of the group) are rated between 125 and 135 by all three raters. Herder (rel. coeff. of data, .43) and Sheridan (rel. coeff. of data, .53), rated 130 IQ by all three, may be regarded as typical representatives of the group.

The standing of Herder's parents allows the son a guessed IQ of not less than 110. The community in which young Herder lived and the school which he attended rank him somewhere near the same figure. The personal characterization, school standing, and intellectual interests raise the rating to 130. Herder "seemed different from other children." "He spent much of his time alone and was always grave and serious." The fact that a fistula in his eye caused him pain throughout the period of his childhood increases the significance of his youthful achievements. Herder's "thirst for knowledge, [his] pleasing manners, and [his] rapid progress" made him the favorite of his exacting and thorough teacher, an ardent scholar. The latter selected the boy from his class as suitable material for the university and gave him private instruction in Greek and Hebrew. The boy's passion for reading became so great that he had to be forbidden the use of books at his meals. If he knew of any book in the village he borrowed and read it. In less circumscribed surroundings this description might easily fit an IQ of 140. The rating of 130 is not too high.

Prescott is entitled by parental standing to a guessed IQ of 120. Attendance at a school of exceptional standing suggests a rating of 125. Prescott's ability and many of his characteristics—his "inquisitive mind, quick perception, and ready retentive memory"—are characteristics of a gifted youth. His superior performance in the college entrance

examination bears out this interpretation. But the raters agree that the evidence does not warrant a rating above 130 because, although Prescott was a great reader, his reading was largely limited to fiction; he disliked mathematics and metaphysical discussions and speculations and, although

TABLE 27

GROUP OF CASES RATED (AI) IQ 130

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Balzac	130 ± 7	.60	145 ± 5	.75
Burns	130 ± 5	.75	130 ± 7	.60
Canova	130 ± 9	.20	140 ± 8	.43
Corneille	130 ± 7	.53	140 ± 7	.60
Heine	130 ± 7	.53	145 ± 7	.60
Herder	130 ± 8	.43	155 ± 5	.75
Huygens	130 ± 9	.20	150 ± 7	.53
Irving	130 ± 8	.43	145 ± 8	.43
Marat	130 ± 9	.20	130 ± 10	.11
Mazarin	130 ± 8	.43	135 ± 8	.43
Molière	130 ± 8	.43	130 ± 8	.43
Newton	130 ± 8	.43	170 ± 7	.60
Prescott	130 ± 7	.60	135 ± 7	.60
Raleigh	130 ± 9	.20	130 ± 10	.11
Rousseau	130 ± 7	.53	125 ± 7	.53
St. Simon	130 ± 8	.43	135 ± 8	.43
Savonarola	130 ± 10	.11	135 ± 7	.53
Sheridan	130 ± 7	.53	145 ± 7	.60
Spinoza	130 ± 9	.20	145 ± 8	.43
Temple	130 ± 9	.20	120 ± 7	.11
Vergniaud	130 ± 9	.20	135 ± 9	.20
Ave. for 21 cases	130 ± 8	.39	140 ± 8	.47

he formed "good resolutions" for study, he was careful never to exceed the number of hours scheduled or to do more than was required. The single written communication preserved from his hand in an available source, and dated from his 16th year has received from three raters an average composition IQ rating of 125. A rating of 130 is not too high for the child Prescott. A higher rating is probably not warranted by the data.

Burns's parental standing is lower than Herder's. His scholastic progress and his literary interests indicate superior intelligence. The fact that he lived in so restricted an

environment makes an interpretation of his record extremely difficult. The feat of learning French independently at 14 is perhaps the most significant single item recorded; a poem written at 14 (the earliest extant from his hand) averages (three raters) a composition IQ of 150.[1] The poem was not published during the period to which its composition is assigned, and proof is wanting that it stands as then written, although there is also no indication of later alteration. Because Burns's recorded interests and performances are all literary in character and closely connected with special talent, the rating of 140 (C and T) is perhaps too high; 110 (M) appears too low. The average of 130 does not seem unduly liberal.

Disagreement in the Canova ratings (T 115, M 160, C 120) is due to the inadequacy of available norms to rank artistic production. The two statues, *Orpheus* and the *Eurydice*, produced at 16, the intense and careful study which preceded their execution, and the allied interests which made such productions possible from so young an artist, present a problem in rating at present insoluble. An IQ of 130 can scarcely be considered too high.

The lower limit for the 21 members of the group is perhaps near 120. Its upper limit is probably not higher than a true estimate of the IQ of Newton, who discovered the principle of the differential calculus before he was 24 and soon after added to this discovery epoch-making contributions to the science of optics and of gravitation. Newton was a university professor of mathematics at 27 and was elected to the Royal Society at 30.

AII IQ 130

(Twenty-two cases. Average reliability coefficient of data, .36.)

John Bright represents the group whose AII IQ rating reaches 130. This youth left school at 15 and was employed in his father's mill. At 21 he assisted in founding the Roch-

[1] The earliest writings in prose or verse of a dozen members of Groups A and B were graded by three judges, all of them college teachers of literature and composition, on Lewis' Composition Scale. The obtained composition scores are quoted as evidence of the sort of measurable material available and in corroboration of the obtained IQ estimates.

dale Literary and Philosophical Society. At 25 he delivered lectures upon his travels and discussed the "decline and fall of nations." He continued in business. A combination of practical business interests and literary and philosophical activities indicates an IQ approaching the "very superior." Young men who at 25 deliver lectures reporting their travels are probably equal in intelligence to the American university student who is a candidate for an advanced degree.

AI IQ 135

The average reliability of the data for the 41 cases rated at 135 is .48, which is distinctly higher than the reliability of the group at 130. The data for three cases, John Franklin, Lamartine, and Thackeray, have a reliability of .75. The two ratings based on the least reliable data are for Erasmus and Spenser (rel. coeff. of data, .11). The former is rated low on reliability because of doubt as to dates, the latter because of a question as to the true authorship of certain translations sometimes attributed to the young poet in his 16th year. Were the dates generally accepted in the case of Erasmus established as correct, he would almost certainly be rated above 140 IQ, while proof of the genuineness of Spenser's supposed early achievement would secure him a rating near 150 IQ. The uncertainty of a judgment dependent upon uncorroborated evidence led the raters to regress toward 100 IQ. The group at 135 is made up of youths whose reported behavior gives evidence of distinct ability only less than that which characterizes the "gifted." They are not rated at 140 because the reported evidence does not afford sufficient proof that they are able to function adequately in many and varied situations requiring intellectual adaptation and insight: in many of the cases practical rather than intellectual ability is evidenced in the years with which we are concerned. Even scholarship appears here to be the result of practical rather than theoretical interests.

John Franklin (T 135, M 135, C 135, rel. coeff. of data, .75) is a typical representative of these practical lads. Ambitious, intensely interested in his profession, a successful and experienced midshipman at 15, he early showed a superiority which was remarked by the older men with whom he associated. Keen powers of observation and the ability to char-

TABLE 28

GROUP OF CASES RATED (AI) IQ 135

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Alfieri	135 ± 8	.43	135 ± 7	.53
Andrewes	135 ± 8	.43	140 ± 7	.60
Arnauld	135 ± 9	.20	160 ± 8	.43
Baxter	135 ± 7	.60	135 ± 7	.60
Bayle	135 ± 7	.53	140 ± 7	.53
Beethoven	135 ± 8	.43	140 ± 8	.43
Burke	135 ± 7	.60	150 ± 8	.43
Calvin	135 ± 8	.43	150 ± 8	.43
Cardan	135 ± 8	.43	155 ± 7	.60
Clarke	135 ± 8	.43	140 ± 7	.53
Cousin	135 ± 7	.60	165 ± 5	.75
Cowper	135 ± 7	.60	140 ± 7	.60
Darwin	135 ± 8	.43	140 ± 7	.53
Erasmus	135 ± 10	.11	140 ± 10	.11
Étienne	135 ± 9	.20	140 ± 7	.60
Franklin	135 ± 5	.75	135 ± 5	.75
Grimm	135 ± 7	.60	140 ± 7	.60
Grote	135 ± 8	.43	140 ± 7	.60
Guizot	135 ± 7	.53	155 ± 5	.75
Hamilton, A.	135 ± 7	.53	140 ± 7	.60
Hastings	135 ± 7	.53	140 ± 8	.43
Kant	135 ± 8	.43	145 ± 8	.43
Klopstock	135 ± 7	.60	155 ± 5	.75
Lagrange	135 ± 8	.43	165 ± 7	.60
Lamartine	135 ± 5	.75	150 ± 4	.82
Lessing	135 ± 7	.60	150 ± 5	.75
Mazzini	135 ± 8	.43	145 ± 7	.53
Montesquieu	135 ± 8	.43	140 ± 8	.43
More	135 ± 7	.53	135 ± 7	.53
Napoleon	135 ± 7	.60	140 ± 5	.75
Penn	135 ± 7	.60	150 ± 7	.60
Racine	135 ± 8	.43	150 ± 7	.60
Robertson	135 ± 8	.43	140 ± 8	.43
Robespierre	135 ± 8	.43	145 ± 8	.43
Smith, A.	135 ± 8	.43	145 ± 7	.53
Spenser	135 ± 10	.11	145 ± 8	.43
Thackeray	135 ± 5	.75	140 ± 5	.75
Vinci, da	135 ± 9	.20	150 ± 9	.20
Wagner	135 ± 7	.53	150 ± 7	.53
Weber	135 ± 7	.60	145 ± 7	.53
Wesley	135 ± 7	.60	140 ± 7	.60
Ave. for 41 cases	135 ± 8	.48	145 ± 7	.56

acterize people and situations gave evidence of his discerning mind. He was quick and decisive. These characteristics and the standing of his family suggest an IQ of not less than 125. In addition, he was an eager and independent student in his profession, he was a reader of good books, and his interest in navigation and exploration showed a distinctly scientific turn of mind. His chief attainment was in the field of astronomical observation. His skill as a nautical observer won the praise of his superiors and the playful title of "Mr. Tycho Brahe." Evidence of a certain cheerful self-satisfaction qualifies, in the rater's mind, the significance of the attainments described by the youth himself and prevents a higher rating on traits which perhaps belong to a higher IQ group.

Other representative cases (the estimates of the three raters do not differ by more than five IQ points for any one of them) are Thackeray, Burke, Grote, and Robertson. These, like the other 37, clearly belong to a superior type.

Thackeray (T 135, M 140, C 135) has many of the distinguishing marks of the gifted. At the age of 11, when fifth from the youngest in a class of 26, he was sixth from the top in standing, although he spent most of his time drawing burlesque scenes from Shakespeare and was called a "lazy boy." Young Thackeray was original in thought and expression, he recognized unusual similarities, he was observing, he wrote (between the ages of 11 and 17) unusually clever verse, often illustrated by as clever caricatures. He had "an absolute faculty of imitation, a wonderful memory, the power of acquiring language." He read critically and understandingly, but he disliked mathematics. In spite of the indication of a disability in mathematics it is clear that young Thackeray was a youth of superior general ability, endowed with special talents for art and literature.

Burke (T 140, M 135, C 135) belongs to the same group by reason of his solid scholastic attainment. He was neither quick nor brilliant. His powers appeared rather in "steadiness of application, facility of comprehension, and strength of memory," and in an "inquisitive and speculative cast of mind" and "a judgment early ripe." While other boys played he read and studied; at first because of physical disability, later because of his genuine interest in the world of

books. Grote (T 130, M 135, C 135) also had both aptitude for and interest in study. His mother taught him to read and write before he was 5½. At school he habitually surpassed in his class boys of his age. Robertson (T 140, M 135, C 135) showed an "ardor for study" and an "assiduity unexampled." He did not care for the sciences; his interest was rather in "elucidating moral and religious truths."

These examples illustrate the traits of the 135 IQ group. They indicate scientific or intellectual interests, more than average application to study in school, or else eager pursuit of some non-curricular aim, superiority in any one line or even in several lines of occupational or professional activity. They suggest in a number of cases such limitations to achievement as one-sidedness of interest, lack of speed in mental operations, or even intellectual laziness. The limitations are perhaps more conspicuous in this group than in some of the earlier ones because the general ability displayed is of a distinctly higher grade. In several of the cases the rating of 135 clearly involves a regression for lack of data. The true lower limit of this group can scarcely fall below 120 IQ. Its true upper limit, set by such youths as Cousin, Darwin, Erasmus, Da Vinci, and Kant, is probably in the IQ range above 160.

AII IQ 135

(Twenty-eight cases. Average reliability coefficient of data, .45.)

The cases estimated at IQ 135 on the second rating are represented by Baxter whose career as recorded shows ability typical of the group. This youth was made head master of a school at 23. The same year he was ordained to the ministry and preached his first sermon. At 25 and 26 he was assistant minister in a town parish. A rating of 135 may be thought too low in such a case. At any rate we may safely assume that young men of 23 who are head masters of schools and who become ordained ministers at 24 would not average below the 135 IQ level.

CHAPTER VIII

DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued*

AI IQ 140

The average of the reliability coefficients of the data for the 28 cases rated at 140 is .56. A single case (Calderon) has a reliability of .20, while the coefficients for 50 per cent of the cases are .60 or above. At 140 we are dealing with evidences of distinct superiority. Single ratings are as high as 165 Dumas (T), 160 Bulwer (T), and 160 Watt (M). The typical member of the group is characterized by general ability of high degree and by definite intellectual or scientific interests. He stands above the level of his schoolmates in artistic, scholastic, or scientific production, and in professional achievement. His earliest development is precocious. Weakness in any one direction is more than offset by excellence in another.

Agassiz, Bichat, and Zwingli, rated at 140 IQ by all three raters, are perhaps characteristic of two subgroups at this level. The record is sufficiently detailed in the case of Agassiz (rel. coeff. of data, .75) to afford a rating of 140 IQ in which we may feel something approaching our confidence in an equally high rating based on a Stanford-Binet test. The information on the other two cases is far less complete (rel. coeff. of data, .43). But in all three cases we are dealing with extraordinary superiority. With Agassiz's early interests as a scientific collector, his "cleverness" as a student (aged 10) and his great "capacity for languages," is contrasted the report that he had little inclination for mathematics and was not above the level of his class at school. At 12 his ambition was to command the whole field of scientific nomenclature. At 14 he had resolved to become a man of letters and had planned his future career in detail. At 15 he became interested in biology, and his "remarkable intelligence and zeal" were noted by his teacher. At 16 he was recognized as a brilliant student in the midst of keen

college competition. An IQ below 140 will hardly account for this case.

The record of Bichat is brief, but convincing as far as it goes. He was sent to college to study the humanities "as soon as his childhood was over." "His love for his work, his

TABLE 29

GROUP OF CASES RATED (AI) IQ 140

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Agassiz	140 ± 5	.75	160 ± 5	.75
Beaumarchais	140 ± 7	.60	145 ± 7	.60
Bentley	140 ± 7	.53	150 ± 7	.60
Bichat	140 ± 8	.43	150 ± 7	.53
Boerhaave	140 ± 7	.60	150 ± 5	.75
Boyle	140 ± 7	.53	140 ± 7	.60
Bulwer	140 ± 5	.75	145 ± 5	.75
Calderon	140 ± 9	.20	140 ± 8	.43
Candolle	140 ± 8	.43	150 ± 7	.60
Carlyle	140 ± 7	.60	155 ± 5	.75
Dumas, A. (père)	140 ± 7	.60	150 ± 7	.60
Hamilton, W.	140 ± 5	.75	160 ± 4	.82
Hobbes	140 ± 8	.43	135 ± 8	.43
Humboldt, A.	140 ± 5	.75	170 ± 4	.82
Kepler	140 ± 7	.53	160 ± 5	.75
Law	140 ± 8	.43	140 ± 8	.43
Montaigne	140 ± 7	.60	140 ± 8	.43
Moore	140 ± 5	.75	140 ± 5	.75
Pitt (the Elder)	140 ± 7	.60	140 ± 7	.60
Priestley	140 ± 7	.53	150 ± 5	.75
Rubens	140 ± 8	.43	140 ± 8	.43
Schiller	140 ± 7	.60	155 ± 5	.75
Seward	140 ± 7	.60	140 ± 7	.60
Strauss	140 ± 7	.60	160 ± 5	.75
Turgot	140 ± 8	.43	160 ± 5	.75
Vega, de	140 ± 7	.53	145 ± 8	.43
Watt, J.	140 ± 7	.53	145 ± 7	.60
Zwingli	140 ± 8	.43	140 ± 8	.43
Ave. for 28 cases	140 ± 7	.56	150 ± 6	.63

respect for his masters, and his attachment to his fellow students, made Bichat one of those *sujets précieux* who show even in youth the qualities for which they will later be distinguished." Every year he carried off the prizes. At 16 he entered a seminary at Lyons to complete his studies by a

course in philosophy. Here he was again distinguished—by amiability, by modesty, and by success. He "sustained public examination in physics and mathematics with the greatest distinction." Here without doubt is a gifted youth. Further information would probably entitle the child Bichat to a higher rating than the present 140, which is not too high as a conclusion from the reported data.

Zwingli enjoyed an education of unusual excellence. "He learned so quickly that he found all the things he was taught too easy to give his clever intellect due exercise." Between the ages of 10 and 14 he carried off all the honors in the school disputations. He was "a brilliant pupil." At 14 he was sent to the best training school for scholars, although this institution was a considerable distance from his home. In favorable surroundings he laid a solid foundation of classical learning and mastered the theory of poesy so that he could both compose and criticize verse. He also continued the study of music, in the performance of which he was already proficient. The rating of 140 is probably a moderate estimate of this lad's true ability.

In the case of Bulwer (T 160, M 125, C 140) the disagreement among the raters is doubtless due to the fact that recorded performance is clearly dependent for its superiority on a distinctly special gift of literary appreciation and literary production. Bulwer, as chronicled, is an example of the precocious child whose achievement in youth fulfills the promise of early childhood. The composite rating of 140 is not too high. Dumas is comparable to Bulwer in the nature of his ability, which has proved difficult to measure in IQ terms (T 165, M 120, C 140). Moore's gifts are also specialized, but the performance of his earliest childhood years is not so striking and the raters find closer agreement (T 145, M 135, C 135). William Hamilton's school and college performance resemble Agassiz's, while his interests are comparable to, though less universal than, those of Zwingli. There are certain definite lacunae in the account of his interests and achievements, and thus the rating is limited here, as in the other cases, to the lower limit of the "gifted" range. The same is true also in the case of Alexander von Humboldt. He is rated on the character of his accomplishment, on an apparent universality of interest and of grasp

similar to, although—as reported—less striking than, that of Zwingli.

Watt (T 130, M 160, C 135) showed, beside general ability, a special mathematical talent which appeared as early as his 7th year. At this early age he was pronounced "no common child" by a visitor who was "astonished and gratified with the mixture of intelligence, quickness, and simplicity displayed by his answers." And yet he was called "dull" by his schoolmates as a consequence of the quietness of his interests. He was distinguished by a "retentive memory." His proficiency in classical studies was considerable, and at 13 or 14 he made rapid progress in the study of mathematics. He developed an astonishing gift of story-telling, holding his hearers by the "overpowering interest of his tales." Before he was 15 he had read twice, and each time with careful attention, a work on natural philosophy. His interest in the subject was intense and original. "Every new acquisition in science, languages, or general literature seemed made without an effort." Between 14 and 17 he carried on experiments in chemistry and electricity. He became profoundly interested in anatomy. "His ardent mind was constantly occupied." His friends were youths of intelligence and education who "feared while they loved him, as he had no patience for folly." Every excursion that he made became the occasion for botanical, mineralogical, and ethnological research. He "accomplished more in a few hours' study than ordinary minds do in many days." He "read indiscriminately almost every book he could procure." He was active and indolent by turns. "Though modest and unpretending, yet . . . he was conscious of his own high talents and superior attainments and proudly looked forward to their raising him to future fame and honor." The reliability of these data on Watt is rated at .53 and the significance of the rating is evident from an examination of the reported facts. The record emphasizes young Watt's high gifts and abilities, but in no case is his performance compared with definite objective standard. We do not know definitely among what group of associates his superiority was remarked. In the only instance in which he is compared with fellow students, and this was before the age of 13, he was considered "dull." Watt's interest, his repu-

tation, and his mental achievement at various ages clearly indicate a gifted boy. His childhood IQ can scarcely have fallen below 130. It might have reached a high point; 160 would perhaps not be an overestimate. An average rating of 140 is certainly none too high for one so apt, as well as so versatile.

The lowest single rating in the 140 IQ group, Dumas père, falls down to 120 IQ (M), while the highest single rating 165 (T) is for the same case. It is, however, unlikely that the true lower limit for the IQ of members of this group would fall below 125 or 130. The true upper limit is indicated, to choose a single instance, by the phenomenal achievement of Alexander von Humboldt before the age of 26, which is recognized in his AII rating of 170 (rel. coeff. of data, .82).

AII IQ 140

(Forty cases. Average reliability coefficient of data, .52.)

Berzelius is a typical member of the group rated at AII IQ 140. At the age of 20 he held a post as assistant to the distinguished physician Hedin. At 22 he was appointed teaching fellow of the Stockholm Medical School. The same year he was appointed assistant in medicine and pharmacy. He delivered a course of lectures in chemistry in addition to his other activities. At 24 he took the place, temporarily, of a retiring professor of the medical school. Besides fulfilling the regular duties of his office he acted as district charity physician.

AI IQ 145

The 30 cases included in the group at 145 were rated on data whose average reliability was estimated at .58. Two-thirds of the cases have reliability coefficients of .60 or above. Assignment to the 145 IQ group or to any of the groups above it, was made only when the evidence indicated remarkable precocity, scholastic achievement of very high rank as compared with that of associates, or extraordinary production along literary, scientific, or artistic lines.

In the 145 IQ group there are five individuals (Emerson, Charles James Fox, Milton, O'Connell, Sainte-Beuve) whose

ratings are based upon material having an estimated reliability of .75. Of these Emerson is rated upon his precocity in learning to read, his literary production at 10 years and later, of which examples are preserved, and his literary in-

TABLE 30

GROUP OF CASES RATED (AI) IQ 145

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Arago	145 ± 7	.60	165 ± 5	.75
Bacon	145 ± 7	.53	155 ± 7	.53
Bailly	145 ± 7	.43	160 ± 7	.60
Burnet	145 ± 7	.60	145 ± 7	.60
Campanella	145 ± 8	.43	155 ± 8	.43
Chalmers	145 ± 7	.60	160 ± 5	.75
Channing	145 ± 7	.60	150 ± 5	.75
Danton	145 ± 7	.60	145 ± 5	.75
Dickens	145 ± 7	.60	155 ± 7	.53
Disraeli	145 ± 7	.60	150 ± 7	.60
Emerson	145 ± 5	.75	145 ± 5	.75
Fénelon	145 ± 7	.53	145 ± 9	.20
Fichte	145 ± 7	.53	155 ± 5	.75
Fox, C. J.	145 ± 5	.75	145 ± 5	.75
Franklin, B.	145 ± 7	.60	145 ± 7	.60
Galileo	145 ± 7	.53	165 ± 7	.60
Gibbon	145 ± 7	.53	155 ± 7	.53
Handel	145 ± 7	.53	155 ± 7	.60
Herschel, W.	145 ± 7	.60	140 ± 7	.53
Humboldt, W.	145 ± 7	.60	165 ± 5	.75
Jefferson	145 ± 7	.60	150 ± 5	.75
Kotzebue	145 ± 7	.60	150 ± 7	.60
Laplace	145 ± 9	.20	170 ± 7	.60
Metastasio	145 ± 7	.53	145 ± 7	.53
Michelangelo	145 ± 8	.43	160 ± 8	.43
Milton	145 ± 5	.75	170 ± 4	.82
O'Connell	145 ± 5	.75	145 ± 5	.75
Sainte-Beuve	145 ± 5	.75	155 ± 5	.75
Webster	145 ± 7	.60	150 ± 7	.60
Winckelmann	145 ± 7	.60	145 ± 7	.60
Ave. for 30 cases	145 ± 7	.58	155 ± 6	.63

terests, his scholarship (excellent except in mathematics, in which he is said to have been inferior), and his unusual maturity and independence of mind in youth. Charles James Fox is rated upon precocity, youthful "sagacity," superiority at home and at school (in a superior group)

varied interests, and intellectual energy. Milton is rated upon his general scholastic progress and achievement, his literary interests, and the remarkable poetic productions of his 16th and 17th years. O'Connell's case presents definite information in regard to early precocity: he learned his letters in one hour at the age of 4; as early as 9 he preferred reading to play and was ambitious to become a great man; in his school work he was quick and persevering and desirous of excelling; in a Jesuit school (in France) he rose to a high place in his class. O'Connell is said to have possessed an exceptionally retentive memory, a quick intelligence, and a rich imagination by the exercise of which he left all his fellow students far behind. His successes in the French college were "as rapid as they were astonishing." An essay written at 16 preserves to us the evidence of his ability. Sainte-Beuve was an excellent student, always first or second, or, at worst, third in the weekly compositions, and winner of the first prize in history at the Concours when he was 14. At 13 he "felt very sure of what he needed" and so persuaded his mother, to whom it meant real financial sacrifice, to send him to school in Paris. Three letters written between the ages of 13 and 16 are evidence of this youth's mature intellectual interests. An ode of his composition (aged 16) entitled *A Young Italian Poet at the Tomb of Tasso* was so well thought of by a teacher that it was preserved among valued papers.

Fourteen cases are reported with sufficient completeness to be rated .60 in reliability for the present purpose. A brief statement regarding each of these may indicate the chief qualifications upon which assignment to the 145 IQ group depended. The child Arago owes his IQ rating to extraordinary mathematical interest and achievement in addition to general ability of a high order. Young Burnet is rated upon his intellectual interests, his superiority in scholastic achievement, and his ardent passion for reading. Chalmers' reported interests were varied; he won some distinction as a successful student, especially of mathematics. The account of Channing tells of very precocious "brightness" and exceptional school standing. Young Danton is said to have been a leader in school work and in schoolboy activities. He won and maintained high standing in his class with

very little effort and showed exceptional literary talent as well. Dickens exhibited literary ability at an early age. His interests were varied; he won success in practical as well as in intellectual pursuits. Disraeli excelled at school. He also showed at an early age a high order of literary ability and keen critical power. Benjamin Franklin's versatility in interest and performance was evidenced at an early age; and his superiority did not pass unnoticed. Herschel was an unusually able student as well as a musical prodigy. Wilhelm von Humboldt learned to read at the age of 3. His unusual general ability was early recognized by the superior persons with whom he came in contact and his scholastic performance was clearly exceptional. Jefferson was superior in his school achievement and precocious in his reading interests. Kotzebue was a lad of quick intelligence who exhibited remarkable literary talent before the age of 16. Young Webster displayed remarkable precocity, very superior school achievement, and unusual accomplishments in reading. Winckelmann exhibited as a lad extraordinary tenacity and perseverance in achieving, in the face of great odds, an unusually superior education. In the limited surroundings of his youth, and against the background of average or even inferior circumstance, he stands out conspicuously as a superior scholar and as a youth of genuine and varied intellectual interests and accomplishments.

The records for eight cases in the 145 IQ group are sufficiently adequate for the present purpose to be assigned a reliability rating of .53. Young Bacon is rated on his precocity, his ability, his reading, and his critical writing. Young Bailly's rating is based upon the rapidity of his progress in scientific and literary study, the character of his literary production, and his other interests. Fénelon was an excellent student at an early age and a youth of general ability. Fichte was a precocious lad with an unusual memory. His school standing was also high. Galileo possessed intellectual aptitudes of various kinds, coupled with considerable mechanical inventiveness. He was a superior draughtsman and a musician as well, but his greatest interest was in scientific study. Young Gibbon is rated on his reading, his literary production, and very early evidences of his "brightness." Handel is perhaps more correctly rated at 145 than

at any of the IQ levels to which the individual ratings assigned him (T 135, M 170, or C 125). His general scholastic standing would entitle him to a rating of at least 120. The number of additional IQ points assigned him depends upon the importance attached in this connection to his musical production. Young Metastasio showed phenomenal literary precocity and intellectual keenness.

The reliability coefficient in two cases (Michelangelo and Campanella) falls to .43, in one case (Laplace) to .20. Michelangelo's case (T 130, M 160, C 140) is another example of the difficulty of rating artistic production. Further enlightenment on the relation of artistic creative ability to intelligence will probably give more than sufficient warrant for the AI rating of 145 in this case where early achievement was clearly extraordinary. Campanella is rated on profound intellectual interests, early aroused, and on unusual achievement. The record of Laplace (T 130, M 160, C 145) furnishes little evidence for an IQ rating. As far as it goes, however, it indicates precocity early recognized, high scholastic standing, an unusual memory, acuteness in analysis, and superior mathematical ability. This lad's AII rating of 170 probably indicates his true ability more nearly than the AI of 145.

Without question there is no member of the entire group rated at 145 whose early IQ actually fell below 130; the true upper limit, set by Laplace, Milton, Fichte, Michelangelo, Herschel, and as many others, may have been considerably above 180.

AII IQ 145

(Thirty-four cases. Average reliability coefficient of data, .58.)

The large group of cases whose AII rating falls at 145 may be represented by Robespierre, who, after distinguishing himself at college, completed a law course at 23 and thereafter, before the age of 25, won prominence in his community for his professional sagacity. Robespierre soon became not only the foremost lawyer of the region but also a writer of local fame and in his 26th year he was elected a member of the Academy of his city. This young man's achievement was unusual, whether we compare it with an

average or a superior group. It clearly indicated remarkable powers. His professional progress and the recognition he had won at the age of 25 are also evidences of very high ability.

AI IQ 150

The records of the 24 cases whose IQ's are rated at 150 average in reliability .68. Fourteen cases (58 per cent) have a coefficient of .75 or above. The reported behavior and

TABLE 31

GROUP OF CASES RATED (AI) IQ 150

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Berkeley	150 ± 7	.60	175 ± 5	.75
Bunsen	150 ± 5	.75	165 ± 4	.82
Byron	150 ± 5	.75	170 ± 4	.82
Canning	150 ± 4	.82	155 ± 4	.82
Carnot	150 ± 7	.60	150 ± 7	.53
Cavour	150 ± 5	.75	150 ± 4	.82
Chateaubriand	150 ± 5	.75	150 ± 5	.75
Comte	150 ± 7	.60	170 ± 5	.75
D'Alembert	150 ± 7	.53	165 ± 7	.60
Davy	150 ± 5	.75	175 ± 4	.82
Descartes	150 ± 7	.53	160 ± 7	.60
Diderot	150 ± 7	.60	145 ± 7	.60
Gassendi	150 ± 8	.43	160 ± 7	.53
Hegel	150 ± 7	.60	145 ± 7	.60
Hugo	150 ± 5	.75	170 ± 4	.82
Lamennais	150 ± 7	.60	155 ± 7	.60
Longfellow	150 ± 5	.75	160 ± 5	.75
Mendelssohn	150 ± 7	.60	155 ± 5	.75
Mozart	150 ± 5	.75	155 ± 5	.75
Renan	150 ± 5	.75	160 ± 5	.75
Sand	150 ± 5	.75	150 ± 5	.75
Schleiermacher	150 ± 5	.75	145 ± 5	.75
Scott	150 ± 5	.75	155 ± 4	.82
Wordsworth	150 ± 5	.75	155 ± 5	.75
Ave. for 24 cases	150 ± 6	.68	160 ± 5	.72

achievement of the youths in this group are characterized by marked superiority. The group of lads rated at 120 IQ gave evidence of ability not less than that of university graduates of the present day; those distinctly above this average received a rating of 130, while distinguished school

or college performance raised the estimate to 140. At 150 IQ we find a group of individuals characterized by high general ability and, in addition, by (1) phenomenal scholastic performance (taking all the prizes or being selected repeatedly as school representatives); or (2) unusually mature interests (often shown in reading); or (3) extraordinary production or achievement (usually scholastic or literary); or (4) phenomenal precocity. In most of the cases, at least two of these elements appear definitely, while one or more of the others may be suggested also.

The least satisfactory record in the group is the report of Gassendi's youth (rel. coeff. of data, .43; IQ ratings, T 160, M 145, C 145). But even this brief account leaves no doubt as to Gassendi's superiority. Indeed, he is reported to have shown "unmistakable marks of genius" in his early years. When scarcely 4 he preached little sermons. At 7 he showed a leaning toward astronomy by giving his comrades ingenious explanations of the movements of the moon. At 10 he harangued a bishop in Latin; and that worthy predicted for him a glorious future. At 13 "the little doctor," as he was called, composed dramas in prose and poetry and with his playmates presented them in the homes of the leading families of Digne. His parents, modest working people, do not appear to have been very desirous of cultivating the talents of their son; but they allowed him to attend the College of Digne and also, though not without objection, to go to Aix, where he finished his course of study under Tessaye. "His talents were already noted and led to preferment." At 16 he returned home. He was invited by a unanimous decision of the faculty to teach rhetoric at Digne, but the offer was not accepted, because Gassendi had already laid out a plan of theological study from which he was unwilling to be turned aside. The interests of this youth of humble family were scientific, literary, and theological. He gave evidence of remarkable precocity, and at an early age his high scholastic ability was recognized by teachers and fellow students alike. This case has been estimated at 145 by two raters, one of whom is especially conservative in rating above 140; the third rater, T, raises the average by his estimate of 160. In this case it is not the facts reported, but the brevity of the account that places an upper limit on

the IQ rating. Therefore the AI rating of 150 is probably too low as a measure of actual ability. It is certainly not too high, and seems to represent fairly the youth's relative rank in the larger group of young geniuses.

With a rating of .53 on the reliability of the data, the cases of Descartes and D'Alembert are not dissimilar. Descartes's rating is based upon indications of early and profound intellectual interests and high scholastic standing fulfilling the promise of a precocious childhood. D'Alembert at the age of 4 or 5 showed that he had an unusual mind. His tutor was "enchanted" by his intelligence. At the age of 10 his master stated that he could teach him nothing further. Because of frail health the boy remained in school until he was 12, when he entered a Jansenist college. There "he made a brilliant success in his studies," and his superiority was long remembered in the college. He was devoted to literature and spent all of his spare time in reading Latin poetry. He was a questioner, devoted to discussion and controversy. At 16 he wrote a commentary on Paul's Epistle to the Romans. Further information would, in both of these cases, probably offer sufficient grounds for higher IQ estimates, for neither contains information of a negative character and the substance of both reports indicates extraordinarily high intelligence.

Berkeley, Carnot, Comte, Diderot, Hegel, Lamennais, and Mendelssohn are rated on data whose reliability coefficient is .60. Berkeley was phenomenally precocious. He entered college two years younger than was usual in his day even for bright boys. Although he was so eccentric that those who did not know him thought him a "dunce," his intimates recognized in him "a prodigy of learning." Carnot was no less precocious. His scholastic record was brilliant. Where it was customary for the pupil to be supported by the instructor in the defense of his thesis, Carnot defended his alone and with great success. Comte was also remarkable for his precocity and scholastic brilliance. Diderot "took all the prizes." His progress was rapid and brilliant. Hegel's record tells of an unusually broad education, profound intellectual interests, early devotion to mature reading, and youthful literary or philosophical productivity of genuine significance. Lamennais is rated on his reading, his literary

production, and his intellectual independence. Mendelssohn early showed high general ability as well as phenomenal musical talent. His musical compositions showed power of analysis and intellectual depth.

Bunsen, Byron, Cavour, Chateaubriand, Davy, Hugo, Longfellow, Mozart, Renan, Sand, Schleiermacher, Scott, and Wordsworth are rated on data whose reliability is estimated at .75. The picture presented in the record of each of these lads is similar to the cases discussed above, but the facts are reported in greater detail.

The ratings on young Mozart (T 125, M 190, C 140) emphasize the difficulty of estimating the intelligence of a musical prodigy. Mozart's family standing entitles him to a guessed IQ of 115 to 120. His reported interests are almost wholly musical, a fact which would not alter the IQ unless there were additional evidence of their intensity or intellectual quality. The construction (at age 10) of an imaginary kingdom, and the plan of its geography executed under the boy's direction by a servant are no more than corroborative of the IQ already established. Skill at cards and in fencing adds nothing diagnostic. In the account of the boy's musical education we have the first evidences of superior ability. A child who learns to play the piano at 3, who receives and benefits by musical instruction beginning at that age, and who studies and executes the most difficult counterpoint at 14, is probably above the average level of his social group. Mozart's general education gives no further clue to his intellectual status. His friends and associates were those that circumstance brought him. His reading and his correspondence show no striking capacity. His precocity, ability, and mental development are disclosed only in his musical performance and achievement. How are we to rate the IQ of an infant who "invents musical ideas" at 3 and 4, who picks out thirds at the same age, and who can, even at this early age, retain musical passages he has heard? Mozart's musical comprehension at 5 was exhibited in his first compositions and in his execution. His repertoire included the characteristic performances of an auditory "eidetiker."[1] Compositions, employing the most varied

[1] An eidetiker is one whose imagery, in whatever modality, is peculiarly vivid, having persistence and completeness approaching the quality of an after-image.

musical forms, appeared in an almost uninterrupted stream from his 5th year onward. The ability to analyze and synthesize musical themes in the construction of an opera at 14; the ability to criticize musical composition and execution, and the interest and enthusiasm of a youth who, at 15, writes music until his fingers ache, are indications of superior intelligence. An "investigation" of Mozart at the age of 9 by a London lawyer established the verity of the reports of his achievements at that time. At 10 he demonstrated his inventive power under test conditions. His most astounding feat was the almost perfect transcription of the *Allegri Miserere* of the Sistine Chapel after a single hearing. Mozart possessed to a high degree all of the musical abilities enumerated by Revesz[1] and by Seashore[2] as the elements of musical talent. He exhibited particularly those that condition the higher processes involving musical memory and imagination, and musical intellect. An IQ of 150 is probably not too high for a youth who combines with superior general ability "grasp of life situations and a farsighted fidelity to sustained effort," remarkable (though peculiarly auditory) memory, and the ability to analyze, to synthetize, and to create harmony.

A single study—that of Canning, the reliability of whose data is rated at .82—presents the characteristic picture of precocity, high scholastic standing, and phenomenal literary production.

The true lower limit of the entire group of twenty-four cases is probably not below 130, while its true upper limit, determined by youths like Descartes, Berkeley, Hegel, and Hugo, cannot be less than 180.

AII IQ 150

(Thirty cases. Average reliability coefficient of data, .61.)

Young Bichat is a characteristic member of the group whose AII IQ rating reaches 150. At the age of 23 this young man undertook the publication and revision of Desault's *Journal of Surgery*, which he continued to publish until his

[1] Revesz, G., *Nyviegyhazi: Psychologische Analyse eines musikalisch-hervorragenden Kindes.* Leipzig, Veit, 1916.

[2] Seashore, C. E., *The Psychology of Musical Talent*, New York, Silver, Burdett, 1919.

28th year. At 25 and 26 he taught anatomy, operative surgery, and physiology. His lectures were received with great favor. A combination of superior scientific and literary powers, or of practical and theoretical ability, is characteristic of the highly endowed youths in the AII 150 group.

AI IQ 155

The data for the nine cases rated at IQ 155 have an average reliability of .68. Four cases are ranked at .75 and one at .82. The records on which the ratings are based present, for the most part, intensified versions of the 150 IQ type; that is to say, the youths described are, for the most part, precocious children whose school achievement was brilliant, whose interests were intellectual and mature, and who produced literary work far beyond the standard for

TABLE 32

GROUP OF CASES RATED (AI) IQ 155

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Condorcet	155 ± 7	.53	165 ± 5	.75
Cuvier	155 ± 5	.75	160 ± 5	.75
Hume	155 ± 7	.60	160 ± 7	.60
Johnson, S.	155 ± 5	.75	155 ± 5	.75
Peel	155 ± 7	.60	170 ± 5	.75
Staël	155 ± 7	.60	160 ± 7	.60
Tennyson	155 ± 4	.82	160 ± 4	.82
Tieck	155 ± 5	.75	155 ± 5	.75
Wolf, F. A.	155 ± 5	.75	165 ± 5	.75
Ave. for 9 cases	155 ± 6	.68	160 ± 5	.72

their years. They differ from the group at 150 in exhibiting more of the several qualifications or else in giving evidence of the possession of an equal number to a higher degree.

Condorcet (rel. coeff. of data, .53) carried off a school (second) prize at 13. At 15 "his success was brilliant and rapid, for at the end of ten months he maintained a very difficult analytical thesis with so much distinction that Clairant, D'Alembert, and Fontaine, who examined him, saluted him as a future member of the Academy." "In spite of the resistance he foresaw on the part of his family, he

resolved to devote himself to the pursuit of science." Wolf was a precocious child who became a brilliant student of recognized ability. At 14 he was a more capable tutor than the Gymnasium teachers. His interests were almost exclusively intellectual. His productions showed high intellectual ability and critical discrimination. Samuel Johnson was a youthful prodigy. His school standing was phenomenal, his literary productions before his 17th year give adequate evidence of a mature mind. Tennyson (rel. coeff. of data, .82) is characterized by varied intellectual interests, versatility of gifts, reading interests of marked intellectuality, and literary productions almost worthy of comparison with mature poetical productions. Mme. de Staël (rel. coeff. of data, .60) was a precocious child who developed abilities and interests of a high intellectual order. Peel (rel. coeff. of data, .60), Cuvier (rel. coeff. of data, .75), and Tieck (rel. coeff. of data, .75) each exhibited, in addition to precocious development and brilliant scholastic attainments, a remarkable memory, photographic in its minute records of detail. Peel would repeat on Sunday evenings both the morning and the afternoon sermons, or he would recite one long poem after another. Of Cuvier it was said that from his earliest boyhood he "never forgot anything" that he had seen or read. Tieck could recall with absolute accuracy the whole of a mathematical exposition as it had appeared upon the blackboard. His teacher correctly considered this an unusual psychological phenomenon.

Hume (rel. coeff. of data, .60) presents a case different from the others. Of his childhood to the age of 14 or 15 little is reported except that he passed through the usual course of education "with success." His mother's reputed comment on his "wake-mindness" may be historical; if so, his abstracted manner is probably the most adequate explanation. After the age of 14 or 15 his reading inclined him to books of reasoning and philosophy, and to poetry and polite authors. "A certain boldness of temper" began to develop in him which "was not inclined to submit to any authority in these subjects" but led him "to seek out some new medium, by which truth might be established." A remarkable letter written at the age of 16 is evidence of philosophical balance and of mature critical analysis. An

essay attributed to the same year corroborates other evidence indicative of the early maturity of Hume's philosophical and critical intellect.

No single rating on any member of this group falls below 140. The 155 group is thus differentiated from the 150 group by the position of its probable true lower limit. The true upper limit for lads like Hume, Condorcet, or Cuvier can scarcely fall below 180.

AII IQ 155

(Twenty-four cases. Average reliability coefficient of data, .67.)

Lamennais and Carlyle are typical AII 155 cases. The former was professor of mathematics in an ecclesiastical college at Saint Malo at 22 and 23. The latter, after serving as mathematical master from the age of 18 to 20 and as head master at 20, gave private lessons from his 23d to his 26th year; and during this period wrote articles for the *Edinburgh Encyclopedia* and translated scientific pamphlets from the French.

The early age at which Lamennais received an appointment as college professor, and the versatility of the gifted young Carlyle, are equally indicative of phenomenal ability.

CHAPTER IX

DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Continued*

AI IQ 160

Eight cases are rated at 160 IQ on data whose average reliability is .71. In this group no single reliability measure falls below .53. The conservative ratings of C tend to decrease the average IQ for the members of the group. Her ratings are below the average six times and above it twice.

TABLE 33

GROUP OF CASES RATED (AI) IQ 160

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Bossuet	160 ± 7	.60	160 ± 7	.53
Brougham	160 ± 5	.75	170 ± 5	.75
Melanchthon	160 ± 5	.75	180 ± 5	.75
Musset	160 ± 5	.75	170 ± 4	.82
Pitt (the Younger)	160 ± 5	.75	180 ± 4	.82
Pope	160 ± 4	.82	170 ± 4	.82
Tasso	160 ± 7	.53	155 ± 7	.53
Wieland	160 ± 5	.75	160 ± 5	.75
Ave. for 8 cases	160 ± 5	.71	170 ± 5	.72

T's estimates are below the average twice and above it six times. M's ratings are below the average twice, above it four times, and equal to it twice. The 160 IQ group is characterized by (1) precocity, (2) brilliant scholastic achievement, and (3) phenomenal literary productivity. The number of documents preserved for six of the cases increases the reliability of the ratings. The importance of such evidence in weighting the IQ is demonstrated. Were data available for all of our subjects that equalled in reliability the records of these six cases, the AI IQ's would be shifted upward all along the line.

The record of Tasso (T 175, M 165, C 135) affords a lower reliability coefficient (.53) than any other included in this

group. Extraordinary reports have been preserved of Tasso's precocity in his infancy. He spoke at six months, studied grammar at 3 years, and at 7 "was pretty well acquainted with the Latin and Greek tongues." At the same age, or a little later, he made public orations and composed pieces of poetry, of which the style is said to have retained nothing of puerility. At 9 he was as "tall and forward as a boy of 12." In his 10th year he wrote certain farewell lines to his mother which would easily entitle him to a composition IQ of 200 or over. A sonnet in praise of Urbino, preserved from his 15th year, indicates by the facility of its technic that it was not an isolated production. At 15 and 16 Tasso corrected the proofs of his father's *Amidigi*. One Tasso critic believes that the *Rinaldo* was begun before Tasso was 17. The rating of 135 (C) does not appear to have weighted the elements in this case adequately. The average of 160 IQ is not too high.

Bossuet (T 175, M 150, C 150) presents an example of intellectual superiority and scholastic brilliance. His "unusual ability" was early discovered. At the Jesuit school "he surpassed all others of his age, and masters and pupils measured him only in terms of his own ability." "His intellectual supremacy was so great that it excited admiration from all. He was a child only in appearance; his mind was mature at birth." He was a passionate reader, devoted to the classics and to the Bible. At 13, when he became canon of Metz, he had the demeanor and appearance of a mature man. At 15 he was noted for his natural eloquence. The university selected him as its representative on festival days. "He became an object of admiration and was soon snatched from his obscurity." At 16 he was writing madrigals and pious poems in the fashion of the day. A charmed admirer of Corneille, he was a devoted theatre-goer. Before he was 17 he presented in an extempore sermon a contrast between the lives of Christ and Alexander the Great. His facility and vigor excited wonder throughout Paris, for the performance gave evidence of minute knowledge, penetrating analysis, and power to organize an intellectual discussion rapidly and convincingly. The rating of T (175) may be too high an evaluation of so brief a report; 160 can scarcely be an overestimate.

Brougham and the younger Pitt are distinguished for precocious mental development, brilliant school progress, and creative scientific or literary productions of a high order.

Melanchthon is distinguished for his brilliant mental powers and his extraordinarily precocious scholastic achievement. "In matters of intellect he had a quick perception, an acute penetration, a retentive memory, an ardent thirst for knowledge, and the ability to express his thoughts with accuracy and precision. In school and out he was incessantly asking questions, and often would gather a few school fellows around him for the purpose of discussing what had been read and learned." Before he was 11 he disputed with roving Bacchanti, and it was seldom that one could withstand him. He was among the few "brightest and best" of the academic youth who were permitted to study Greek. He wrote Latin verses at 12. Before he was 13 he entered the University of Heidelberg, where he read poetry, wrote verses, and studied, for the most part without other direction than his own. His reputation as a Greek scholar was soon established. During his first year, and before he was 13, he was appointed to hear the Greek recitations in the professor's absence. He tutored the sons of a nobleman. Evidences of his ability are preserved in two Latin poems written at 13, when he had already taken rank among the learned. At 14 he took the Bachelor's degree. It is believed that he was working on his grammar at this time. At the end of another year he had fulfilled the requirements for the Master's degree, but the degree was denied him because of "his youth and boyish appearance." At 15 he went to Tübingen, where his studies "took a wide range." "He sought to know everything and to be a master in every science." "He gave attention chiefly to Greek and Latin literature, to philosophy, history, eloquence, logic, and mathematics, heard the theologians and the lecturers on law and medicine, and read Galen so carefully that he could repeat most of his works from memory." Just before his 17th birthday he received the degree of Master of Arts as first among eleven candidates and, with the degree, the license as *privat docent* to lecture on the ancient classics. "His enthusiasm for classical literature awoke a new life in the university." The estimate of 160 IQ is a conservative rating of this case.

Musset was mentally precocious, and his school record was brilliant. He was gifted with literary talent. At 3 he exhibited the ability to converse intelligently. At 8 he demonstrated the principle involved in the "cannon ball test" of year 16 ("average adult") in the Stanford-Binet Scale. From the moment when at 9 he handed in his first school composition, "he held the highest rank and attracted the attention of the professor." He was "the youngest in his class as well as the brightest." "He had so much conscience as regards work, so great a desire to do well, so much fear of not succeeding, that he was always unhappy and always agitated during the period of his classical studies." At 10 in order to continue with a teacher who had shown an interest in him he skipped the fifth class entirely and yet won the first prize at the end of the year. He is said to have written his first poem at 14. At 15 he began to question, analyze, and reason independently and profoundly. At 16 Musset won a number of prizes, among them a second prize in philosophy in the grand competition. His essay was said by the professors to have been recognized immediately as the best of all those submitted from the standpoint of thought and form, but "the religious side had been too little developed" to win its author a first prize. Musset exhibited no such sustained and profound scholarship as did Melanchthon, but his brilliance is indisputable. A rating of 160 seems fully justified by the evidence.

Wieland and Pope displayed precocious literary talents as well as general ability in school and wide intellectual interests. Wieland learned to read and write at the age of 3. Pope taught himself to write by copying from printed books at about the same age. Wieland began to compose verses at 6. The first recorded compositions of Pope were written when he was between 8 and 12, but he had begun to write verses "further back than he could remember." Both lads were enthusiastic readers. Wieland's verses in German and Latin, preserved by his mother, filled several boxes by the time the young poet had reached his 15th year. Pope wrote a play and the *Ode to Solitude* at 12. The composition IQ's of both youths are above 200. Wieland began an epic at 12, Pope at 13. Wieland excelled in school tasks. Pope was unadaptable and went his own way. The *Pastorals,* which

Pope considered the most correct and musical of all his works, were begun in his 16th year. Wieland began his first great poem at 16. Pope's associates were mature men, and his interests were those of an adult. An astounding critical and analytical power appeared in him before the age of 12 and developed rapidly. Wieland, at 15, wrote a speculative essay, on the origin of things, that shows mature scientific and philosophical attitudes and keen discernment. Both youths were exceptional, and the evidence for each warrants a rating of 160.

The true lower limit of the whole group rated at 160 is probably considerably above 140, while its upper limit may be near 200.

AII IQ 160

(Twenty cases. Average reliability coefficient of data, .67.)

Agassiz represents the group whose AII IQ is estimated at 160. At 22 he took the Ph.D. degree. He was then already recognized as the foremost student in Europe of the fresh-water fishes of Switzerland and Southern Germany. At 23 he took the M.D. degree. At 25 he was appointed to a professorship in the college of Neuchâtel. He declined a call to Heidelberg the same year. The career outlined gives clear evidence of ability as much above 140 IQ as that level is above the intelligence of the average B.A. graduate of a standard classical university course.

AI IQ 165

The reliability of the data for the subjects in this group is rated at .67. (At 160 the average reliability was .71.) The members of the 165 IQ group are distinguished by extraordinary mental precocity, phenomenal scholastic attainment, or noteworthy literary performance in early youth.

The case of Wolsey is rated (T 175, M 165, C 150) on information so brief that its reliability coefficient is only .43. Wolsey "early discovered a docile and apt disposition for learning" which encouraged his parents to give him a superior education. "He was so early sent to the University of Oxford that he took his Bachelor's degree in arts there when he was 14 [or 15] years old, at an age when few

members now of the most forward capacity, and with all the present, and commonly speaking, much superior advantage of education are known to be admitted. So that he soon got a name of peculiar distinction and was commonly called the 'Boy Bachelor.'" Soon after he had taken his degree of Bachelor of Arts, and having made an extraordinary progress in logic and philosophy, he was elected Fellow of Magdalen College in Oxford. Whatever the usual age for entrance to Oxford University at the period, the epithet of the "Boy Bachelor" marks Wolsey as an unusually precocious youth.

TABLE 34

GROUP OF CASES RATED (AI) IQ 165

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Adams, J. Q.	165 ± 4	.82	165 ± 4	.82
Constant, B.	165 ± 4	.82	160 ± 5	.75
Mirabeau	165 ± 7	.60	175 ± 5	.75
Niebuhr	165 ± 5	.75	175 ± 5	.75
Sarpi	165 ± 7	.60	175 ± 7	.60
Wolsey	165 ± 8	.43	165 ± 10	.11
Ave. for 6 cases	165 ± 6	.67	170 ± 6	.62

Mirabeau is distinguished for his remarkable precocity, his brilliance in mathematics, his comprehension at 15 of Locke's philosophy, and his profound interest in difficult problems.

Sarpi took in his school the place he held through life, "and that was the top of the class." His remarkable ability, industry, and perseverance were early noticed. "Passionately devoted to books and learning, he mastered with ease everything put into his hands." His powers of memory were extraordinary. He used to discredit the stories of his retentiveness by saying that he never at school could repeat "more than thirty lines of Virgil after a single hearing." The common saying at school was, "All we to our frivolities and Pierino to his books." Sarpi was a favorite among his classmates in spite of having exceeded them "beyond any possibility of comparison, in every department of study." At 13 he entered a monastery as a novice. At 13 and 14 he won applause for his monastic order by two brilliant disputations

in which he exhibited wide knowledge, brilliant powers of reasoning, and the complete absorption in his subject, which, combined with freedom from self-consciousness, often characterizes the youthful genius. At this period Sarpi's criticisms of Duns Scotus convinced his teacher of the fallacies in the system of that still generally accepted schoolman. Sarpi's teacher said, "I have learned not a little from Paolo [Sarpi] in the very subjects I am teaching him."

Niebuhr was a precocious child who became a brilliant youth. He displayed sound scholarship, wide interests of a high order, and mature performance in economic, military, and financial statistics, before his 17th year.

John Quincy Adams showed very superior general ability at an early age. His interests, his writings, his school achievement were far beyond his years. At 14 as private secretary, he attended Dana on a government mission to Russia. At 16, in the Anglo-American peace conference in Paris, he acted as his father's additional secretary.

Constant is distinguished for his "astonishing" precocity. At 5 he "invented" Greek under the guidance of a tutor who thus incited him to learn what he thought was his own creation. At 7 his literary ideas were far developed. He was planning a literary future. At the same age he could play a difficult sonata, and at 9 he could read any music at sight. His letters to his grandmother, at 9, 10, and 11, show a composition IQ above 200. At 11 he would sometimes "dress Horace up so humorously that he would never recognize himself." He wrote an opera, both words and music, before he was 12. Between 7 and 13 he had written a number of poems and essays which are preserved. At 13 he was sent to Oxford. But the university which the English enter at 20 was not a suitable place for the boy just beginning his teens, and so at 14, after further private study, he enrolled in the University of Erlangen and at 15 in the University of Edinburgh. In both universities he "worked enough" so that "only good was said of him." His brilliant powers were generally recognized.

The members of the group rated 165 IQ are prodigies in both ability and achievement. Their gifts were in each case recognized even during childhood as possessing the qualities of genius. The true lower limit of the group cannot

be thought of as below 150. The true upper limit may be above 200.

AII IQ 165

(Fourteen cases. Average reliability coefficient of data, .68.)

Coleridge's achievement is representative of the high level reached by the youths whose AII IQ's are rated at 165. The young poet wrote his first verses at 14 and 15. At 19 he entered Cambridge. At 20 he wrote a number of poems, later published. At 21 he left Cambridge and served for a short time in a regiment of dragoons, but re-entered Cambridge a little later the same year. At 21 he developed with Southey the Pantisocracy Scheme. At 22 Coleridge with Southey wrote a drama, *The Fall of Robespierre.* The same year Coleridge left Cambridge without a degree and settled at Bristol as a public lecturer. He published *Sonnets on Eminent Characters* in the *Morning Chronicle.* The first edition of his poems appeared when he was 23, the second when he was 24. *The Ancient Mariner* and *Christabel* were begun when he was 25, and the drama *Osorio* was written the same year. An annuity was conferred upon the young poet at this time by J. and T. Wedgewood. The amount of literary work of the highest quality produced by Coleridge before he was 26 and the range of his interests and activities indicate intelligence of an unusual and rare order.

AI IQ 170

Three cases offer data sufficiently convincing in their report of precocious achievement to require ratings averaging IQ 170. In the reliability of their data the three average .72. Were C's ratings not consistently conservative at the upper levels, these cases would probably rank considerably higher. The average of the ratings of T and M is 175 for Voltaire and 180 for Leopardi and Chatterton. C's standard deviation is smaller than those of M and T; hence, a rating of 150 by C has relatively a higher significance than such a rating by either of the other raters. While the average IQ's in the highest levels are decreased toward the mean by C's underestimates, the individual cases preserve in general their rank-order. The overlapping of all three raters is

considerable at the upper levels. The groups of cases are small, and hence, while differentiation between the groups is in the main possible, it is difficult.

Leopardi, Voltaire, and Chatterton are all reported to have been precocious children who became brilliant youths.

TABLE 35

GROUP OF CASES RATED (AI) IQ 170

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Chatterton	170 ± 4	.82	170 ± 5	.75
Leopardi	170 ± 7	.60	175 ± 5	.75
Voltaire	170 ± 5	.75	180 ± 5	.75
Ave. for 3 cases	170 ± 5	.72	175 ± 5	.75

Leopardi's scholarship and his scholarly productivity are of the character of Melanchthon's, but his reported performance indicates a more unusual course of self-education and more striking achievement than Melanchthon's in the period with which we are concerned. Leopardi learned Greek, French, Spanish, English, and Hebrew without a master. His familiarity with Greek was almost incredible. Before the age of 12 he composed little essays which he recited at the end of the school year. He read voluminously from his 12th year. At 12 he was, in his formal education, the equal of a Lyceum student. From 12 to 17 he wrote numerous poems, historical and scientific treatises, sermons, translations, criticisms, and annotations; also dissertations, logical, metaphysical, physical, and moral. At the age of 11 he began a history of astronomy which he finished a few years later. This is "remarkable for the number of sources drawn upon and the patience with which the author must have worked." At 15 Leopardi realized that literature was to be his vocation. "At 15 and 16 he wrote tragedies and verses of varied metre, transfused with his imaginative humor." At 16 he wrote in blank verse a tale of the Flood, a prose essay on natural history in twelve treatises, and two translations from Greek into Italian. The latter, two entire books, were translated in the space of six months. Other scholarly treatises followed during the same year. Before he was 17 Leopardi was carrying on the work of a mature

scholar, assimilating, condensing, and reproducing his material, transformed and unified; in parts, however, his labors show only "astounding laborious study and patience." But Leopardi was already a recognized scholar. Cancellian said: "We have reason to expect much from a young man who even now shows such extraordinary ability." The Swedish scholar Akerblad expressed the same opinion. Creuzer, who had spent a lifetime in the study of Plotinus, made use of Leopardi's work in writing his own. Niebuhr at this time called Leopardi "a conspicuous ornament of Italy." Other scholars were equally full of praise. The composition IQ[1] of this youth at 12 years of age or even earlier was probably over 200. His critical, analytical, and synthetical powers sufficiently entitle him to the average rating of 170 IQ.

Voltaire's precocity, his brilliant school career, and his early poetical and philosophical maturity entitle him to a position at least as high as Leopardi's. There is a suggestion that his judgment was keener, his perception of relationships more profound, than we have met in any other case up to this point. "That boy wants to weigh the great questions of Europe in his little scales!" An IQ of 170 is not too high a rating of the intelligence of the child Voltaire.

Chatterton's achievement was almost wholly literary. His school standing gave evidence of superior ability. His literary productions, long challenged as impossible of production by a youth, are now generally accepted as genuine. They give evidence of a knowledge of facts, words, and word forms, of ingenuity, inventiveness, and creative power exhibited to an equal degree in few other reported cases. The amount of this youth's production has been exceeded at a similar age in no known instance.

The true lower limit of the three cases in the 170 group may be nearer 160 than 150, while the true upper limit of a group containing Voltaire must approach or perhaps exceed a score of 200.

AII IQ 170

(Fourteen cases. Average reliability coefficient of data, .76.)

Peel at the age of 20 took the B.A. degree at Oxford with double first-class honors. At 21 he entered the House of

[1] See note p. 111.

Commons. At 23 he became Under-Secretary of State for the Colonial Department, and at 24 Chief Secretary for Ireland. This brilliant career fully realized the hopes which the phenomenally gifted boy had aroused. Many decades did not produce a second Peel.

AI IQ 175

For each member of the group of three at 175, records have been found whose reliability as a basis for an intelligence rating has been estimated at .82. C's IQ ratings lower the group average some 5 points. It is apparent that in the opinion of the raters these three cases belong among the select individuals of the highest (reported) intelligence in the study.

TABLE 36

GROUP OF CASES RATED (AI) IQ 175

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Coleridge	175 ± 4	.82	165 ± 5	.75
Haller	175 ± 4	.82	180 ± 4	.82
Schelling	175 ± 4	.82	180 ± 4	.82
Ave. for 3 cases	175 ± 4	.82	175 ± 4	.80

Coleridge and Schelling were both prodigies of learning and production, the one poetical, the other scientific or philosophical.

Haller began to preach to the servants at the age of 3 and to make little books at 3 or 4. These books were financial statements and lexicons—lists of all the new words that he learned from day to day. This lad played little and studied much. At 8 he made great lexicons containing all the Hebrew and Greek words in the Old and New Testaments, with their variations, roots, and meanings. He prepared as many as 2,000 biographies of famous people on the pattern of Bayle and Moreri, whose encyclopedias he had already read. His associates did not understand such extraordinary activities and he was considered simple. At 8½ he passed, "without an error," the entrance test to the public school. His ambition was so great that his teacher thought it must be repressed. As a child Haller was beside

himself if he were not, through application and ability, the first in his group. At 9 he knew the Greek Testament *ad aperturam*. Nothing seemed impossible to him, endowed as he was with a prodigious memory, an unusual capacity for work, and the irresistible drive to master the enormous amount of material he had assembled. Although his relatives took exception to his passion for reading and scoffed at his labors, he was not deterred. At 9½ he wrote his first Latin poem, a satire on the severity of his teacher. At 11 he began to write verses in German. When ill with smallpox at the age of 12 he conceived a love poem in French. At 12 he wrote a Gymnasium entrance exercise in Greek which the rule only required in Latin. While the professors lectured he wrote verses. He read voraciously. He worked out an arithmetic. Homer, Horace, Ovid, and Virgil were thoroughly familiar to him. At 13 he would shut himself up in his room from an unsympathetic world and there write verses of every kind in many languages. Among these were translations from the ancients, tragedies, occasional poems, and an epic of 4,000 verses. When the house in which young Haller lived was on one occasion threatened by fire, it was his own literary productions alone that the boy rescued from danger. He is said, however, to have had no idea of his precocious poetical ability. At 15 Haller attended the University of Tübingen, where he took part in the usual disputations, wrote verses, studied, and dissipated. At 16 he escaped from dissipation by going to Leyden, his "paradise," whither Boerhaave attracted studious and sober students from all parts of the world. Haller's early scholarship, interests, and productivity entitle him to a place in the little group whose lower limit is probably not less than 160 while its upper limit is doubtless near or above 200.

This group may perhaps be differentiated from the preceding one by the difference in its true lower limit. It can scarcely exceed, though it may equal, Voltaire and the other two 170 IQ's in its true upper limit.

AII IQ 175

(Six cases. Average reliability coefficient of data, .74.)

Davy served as apprentice to a prominent Penzance physician from his 17th to his 20th year. At 19 he was appointed

assistant in the laboratory of Beddoes' Pneumatic Institution, Bristol. At 20 he published his first scientific article. During the same year his published *Researches, Chemical and Philosophical* attracted great attention among scientists. At 22, appointed assistant lecturer in chemistry at the Royal Institution, London, Davy was eminently successful. He was rapidly promoted. Before the age of 23 he had made his first communication to the Royal Society. In his 24th year he was promoted to a professorship in the Royal Institution; he had already begun to make important discoveries in agriculture and electrochemistry. The originality which Davy displayed in his earliest laboratory research, and the evidence of its recognition in his extraordinarily rapid rise in his profession, indicate that he had reached in early manhood a level of mental achievement seldom attained by others at any age.

CHAPTER X

DISCUSSION AND ANALYSIS OF THE IQ RATINGS—*Concluded*

AI IQ 180

The reliability of the material for the three cases at 180 IQ is .80. The least reliable case, Pascal (rel. coeff. of data, .75), is here the only one which maintains its level in the second (AII) rating.

Macaulay's phenomenal precocity is well known. His AI IQ is rated on early intellectual brilliance and extraordinary literary production, combined with a memory the power of which has seldom been equalled and scarcely exceeded by any individual in the study.

TABLE 37

GROUP OF CASES RATED (AI) IQ 180

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Bentham	180 ± 4	.82	170 ± 4	.82
Macaulay	180 ± 4	.82	165 ± 5	.75
Pascal	180 ± 5	.75	180 ± 5	.75
Ave. for 3 cases	180 ± 4	.80	170 ± 5	.77

Bentham's precocity appeared in "learning his letters before he was able to speak," in enjoying the perusal of Rapin's *History of England* when he was not yet 3¼, in learning to read and write Latin and Greek at 4, and in an intensity of intellectual enthusiasm that led him at 6 to find a refuge from boresome conversation among his beloved books. He enjoyed reading Pope's *Homer* at 6, while *Télémaque* became his passion at 6 or 7. A little later he was reading Voltaire's works. At Westminster School, Bentham (aged 7 to 12) was the smallest and probably the youngest member of his class. Morbidly sensitive, he committed to memory, in order to avoid disgrace, what he would have liked to avoid because it was dull and stupid. At 10

he obtained as "the last and least of nine candidates" the right to enter the university. But the family feared to send the tiny precocious lad away from home, and so he remained at Westminster until he was 12. His fame as a "little philosopher" was considerable. At 12 Bentham entered Oxford, and there took to the study of mathematics of his own accord and without the aid of a tutor. At 13 he wrote a Latin ode that "made some noise" and was praised by Dr. Johnson as "a very pretty performance of a young man." Verses and letters of this period give evidence of a singularly mature mind. When just under 16, Bentham received the degree of Bachelor, "a rare honor for so young a lad." Immediately he became a law student in the Court of King's Bench.

Pascal was no less precocious, but he was fortunately without Bentham's neurotic sensitivity. "As soon as he was old enough to take part in conversation" he showed "signs of an unusual intelligence by the clever remarks he made and particularly by the questions he asked regarding the nature of things, questions which amazed every one." "As he grew his ability continued to develop, so that he was always much advanced for his age." Pascal's father, like James Mill, devoted himself to the education of his son. He planned to wait until the boy was 12 to teach him Latin and Greek, and still later to introduce him to mathematics. In the meantime he "taught him everything which he considered him capable of learning," showed him the underlying principles of grammar, and taught him the nature of language. He also taught him natural sciences, in which the boy took great pleasure. Young Pascal wanted to know the reason for everything. He was not at all content with a half answer. "To know the truth" was always the single aim of his mind and he was never content with less than the whole truth. "When he once started on anything he would never give it up until he had found a satisfactory explanation." "Once he noticed that when a knife was struck against a plate it made a loud noise, but this stopped as soon as one put his hand against the plate. He at once desired to know the cause and this led him to make a series of experiments in sound. He discovered many things, so that at the age of 11 he wrote a thesis on sound which was found to be very

logical and well thought out." The elder Pascal promised to teach his son mathematics once he should have mastered the classical languages, but young Pascal was not satisfied to have the subject of his desire thus postponed; he persisted in the demand to know at least of what the science of mathematics treated. Hoping to put an end to the boy's importunity his father told him that in general it was the means of making accurate figures and finding the relation they bear to each other. At the same time he forbade his son to think or speak of the subject again. But the boy could not forget; he began to dream of what his father had said and to mark figures on the walls of his playroom, seeking to make a circle perfectly round and a triangle with equal sides and angles. He devised his own mathematical terms, discovered the relations between the figures, made axioms, and built up perfect demonstrations. It was only when he had reached the 32nd proposition of Euclid (the sum of the angles of a triangle is equal to two right angles) that his father discovered what he was doing. And now the delighted parent contributed assistance to the progress he had previously attempted to thwart. After this, young Pascal continued his studies, advancing in them so far that he was invited to attend the weekly conferences in Paris "where all the clever people assembled to bring their work or to examine that of others." He "soon held the first rank, as much for his inquiries as for his production, though he was one of the members who most often brought in new ideas." "His opinions were given as much weight as any and his advice was always listened to, because he had so keen a mind that he discovered falsities which were hidden from others." His mathematical work was carried on in his spare time; but he advanced so rapidly in the hours he did spend at it that at the age of 16 he wrote a small work on conic sections, "which his father sent to Descartes, who received it with the suspicion and distrust he generally awarded to the labors and inventions of other thinkers." Sainte-Beuve remarks that Descartes was jealous of the rising genius of Pascal, "regarding the youth of 16 as a possible rival." At 16 and 17 Pascal continued to study Latin and Greek, as well as logic, physics, and philosophy, and delighted his father by the wonderful progress he made in all the sciences.

Pascal's later career fulfilled the expectations aroused in his youth. At 19 he invented a calculating machine. At 25 he established the theory of atmospheric pressure by a famous barometric experiment. Converted at 26 to a religious life, he gave up his scientific studies for a time, but at 30 and 31 he was again writing important treatises on physics and mathematics. At 31 he entered the cloister at Port-Royal, and at 33 published his *Provincial Letters,* which, according to Hallam, "did more to ruin the name of Jesuit than all the controversies of Protestantism or all the fulminations of the Parlement of Paris." At 35 and 36 he "made some important discoveries with reference to the cycloid." He then challenged the mathematicians of Europe to solve his problem and offered a prize. When no one succeeded, he published his treatise containing the necessary solution. At his death at the age of 39, he left incomplete an extensive and systematic work on the fundamental truths of religion. The evidence of Pascal's early years is confirmed by his later achievement. In young Pascal we find rare language mastery combined with critical powers, the ability to reason independently, to recognize essential elements, to abstract, to generalize, and to isolate and compare elements in a manner which characterizes intelligence of a high order.

The true lower limit of the early IQ's of Macaulay, Bentham, and Pascal may be 160. The true upper limit is probably above 200.

AII IQ 180

(Six cases. Average reliability coefficient of data, .78.)

The younger Pitt was called to the bar at 21. He took his seat in the House of Commons within a year. At 23 after refusing the Vice-Treasurership of Ireland he became Chancellor of the Exchequer under Shelbourne. Before he was 24 he had declined an offer to the Premiership because he knew his party then lacked strength. A year later when the situation had altered to his satisfaction, and before he was 25, he became Prime Minister. Pitt's early career can scarcely be duplicated. Perhaps the average IQ rating of youths who become able Prime Ministers when they are not yet 25 depends on this one case!

AI IQ 185

Three cases, Grotius (rel. coeff. of data, .75), Leibnitz (rel. coeff. of data, .75), and Goethe (rel. coeff. of data, .82) average 185 IQ on the basis of the records. A single estimate for Grotius is 190, two for Leibnitz reach that figure, while one for Goethe reaches 195. No single rating for any one of the three falls below 180. The three cases in this group are characterized by a universality and level of interest

TABLE 38

GROUP OF CASES RATED (AI) IQ 185

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Grotius	185 ± 5	.75	190 ± 5	.75
Goethe	185 ± 4	.82	200 ± 4	.82
Leibnitz	185 ± 5	.75	190 ± 5	.75
Ave. for 3 cases	185 ± 5	.77	195 ± 5	.77

and ability in their early years that are far above the usual "precocity" of childhood. Mental development, as reported, occurred with such rapidity, and early reached such proportions that present norms are not adequate measures of the ability shown. Voltaire, Mirabeau, and Pascal gave similar indications. But here reports are sufficiently complete to give an adequate basis for a rating to some extent commensurate with true endowment. The ratings indicate that the individuals in the 185 AI IQ group have as reported seldom been equalled and, in the present study, only once exceeded in early evidences of intellectual superiority.

"In the annals of precocious genius there is no greater prodigy on record than Hugo Grotius." Brilliance, untiring diligence, enthusiasm that could not be curbed, characterized this boy's early development. At 7 or 8 he wrote Latin verses which entitle him to a composition IQ rating of 200 and indicate in him a degree of language mastery, and an ability to abstract and to generalize that are typical of twice his age. This boy's distinguished record at the University of Leyden and the impression he made there in his 12th year upon such scholars as Joseph Scaliger and Doriza

indicate a rare combination of sound and mature scholarship with practical adequacy in the affairs of every day. Attention to detail, readiness in acquiring information, a superior memory, and the ability to analyze, generalize, compare, and contrast were among his early characteristics. He did not limit himself to a single field, but exercised himself thoroughly in history, philosophy, astronomy, mathematics, religion, and law. He wrote poems of merit, two of which were published when he was 12 and another when he was 13. At 14 he wrote a new edition of *Martianus Capella,* which Scaliger regarded as an excellent piece of scholarly learning and Bentley thought worthy of attention and study. The same year he took part in two public debates upon philosophical questions. These exercises called forth mature powers of reasoning and of comprehension, and that skill in the organization of abstract ideas, discrimination, and the making of fundamental distinctions which are fundamental to the highest intellectual processes. Before he was 15 Grotius was spoken of by distinguished scholars as a prodigy. At 14 he was called by one "a youth of greatest hopes"; at 16 he was pronounced by another to be "a youth without an equal." At 15 Grotius accompanied the Dutch ambassador, Barneveld, to the court of France where the king was pleased to laud the boy as "the miracle of Holland." At the end of a year in France Grotius received the degree of Doctor of Laws from the University of Orleans with high testimony to the scope of his abilities and attainments. The same year his scholarly *Martianus Capella* was published with its brief, clear notes. Butler says: "There is not, perhaps, an instance of a person's acquiring at an age equally early this reputation which attended the first publication of Grotius." A few months after the publication of his great work the young scholar followed it by a Latin translation of a treatise on navigation by compass, a work which involved a knowledge of mathematics and showed its author to be as well informed in science as in letters.

In the account of Grotius there is every indication of the presence of the highest native endowment. There is no indication of disproportion in either knowledge or ability. Grotius' gifts were harmonious and, as far as intellect was concerned, universal. At 8 his ability was at least that of a

youth of 16; at 16 it was that of a mature scholar. And combined with a rare intellect was its complement, a noble character.

The universality of Leibnitz' interests, his astounding intellectual progress, the character and volume of his reading, and his mature philosophical and scientific productions at an early age are evidence of native gifts similar to those which Grotius possessed and which are the essentials of superior intellectuality.

Goethe's early development, his scholastic progress, his interests, and his reading warrant a rating for phenomenal ability. His astounding literary performance before the age of 8 entitles him to a composition IQ rating far above 200. A rating of 225 IQ indicates the impression in terms of intelligence made upon one rater by Goethe's later record.[1]

Grotius, Leibnitz, Goethe, three universal geniuses, the evidence of whose overpowering intellect appeared and was recognized in earliest childhood as it was later in their youth, are doubtless among the greatest minds with whom this study is concerned. A minimum childhood IQ for these cannot be less than 180. A maximum is probably close to the maximum for the human race.

AII IQ 185

(No cases)

AI IQ 190

The three AI IQ ratings for a single case, that of John Stuart Mill, average 190. The reliability of the data is estimated at .82. No other record of the early development of an eminent man is more complete; no other gives more detailed evidence for each succeeding year; in no other is there a more satisfactory basis for estimating the presence of the elements of intelligence. Data like those recorded for Mill's early years afford a comparatively adequate basis for historiometric measurement, and the results obtained are fairly comparable to an IQ rating based upon mental test results.

The account of the first 17 years of Mill's life contains

[1] See discussion of AII IQ 200 on pp. 693 ff.

detailed evidence of precocious intellectual development: mature interests and activities; extraordinary school progress in literature, history, philosophy, mathematics, and logic; early association with men of deep and critical thought; a program of reading exceeded in intensity, extensity, and depth in no other reported instance; and extraordinary production, beginning at the age of 6 with a history of Rome, which ranks its writer above IQ 200 on a composition scale, and ending for the first period with serious political and critical essays published shortly before the writer's 17th birthday.

TABLE 39

CASE RATED (AI) IQ 190

	AI	Rel. coeff. of data	AII	Rel. coeff. of data
Mill, J. S.	190 ± 4	.82	170 ± 4	.82

The most striking items in Mill's early mental progress may be summarized in a brief chronicle of successive years.

At 5 the precocious lad maintained an animated conversation with Lady Spencer on the comparative merits of Marlborough and Wellington. This alone indicates a level of development of which the IQ index reaches or exceeds 200. At 6½ the child was able to use intelligently such words as "government," "conquest," "defeat," "expulsion," "reign," "opposed," and to write such expressions as "the country had not been entered by any foreign invader," "established a kingdom," "succeeded in the government," "engaged in wars." Both the words and the expressions are typical of somewhat more than an average 12-year-old vocabulary. Before he reached the age of 7 young Mill evidenced the ability adequately to handle historical material and to prepare "erudite and critical notes," a performance which indicates an IQ near 200 thus corroborating the vocabulary rating.

At the age of 8 the child was giving instruction in Latin and being held responsible for the errors of his pupil. Both ability and its recognition are indicated in this report. Teaching a foreign language involves mastery of his own and the foreign idiom. Success depends in no small degree upon ready familiarity with a considerable vocabulary in each

language. Mill's achievement indicates facility in comprehending and using new symbols, and in substituting them for old ones; it is proof of the capacity to compare, abstract, and generalize, more characteristic of 16-year than of 8-year intelligence. In connection with his teaching he expounded Latin grammar, Nepos, and Caesar's *Commentaries,* indicating thus the possession at the age of 8 of general ability that would register successes in intelligence tests at the 14- or 16-year level.

Before he was 9 years old Mill was reading Greek and studying Euclid and Euler. During the following year he read Pope's *Iliad* and for his own pleasure reread it some twenty or thirty times. Such intellectual enthusiasm is rare in one of his tender years. In his 10th year the boy's literary tastes continued to dominate in his choice of a pastime: he devoted his leisure hours to a volume of Livy "for very love of it."

At the age of 11 Mill was engaged in mathematical studies comparable in character and difficulty to those of many a college student of our own day. The plan of study for the year included conic sections, infinities and fluxions, and astronomy. In his 11th and 12th years he composed as a voluntary exercise a history of the Roman government, an octavo volume, worthy the authorship of a present-day college sophomore or junior. Based upon Latin sources, this work contained a discussion of constitutional points, including a vindication of the agrarian laws and a defense of the Roman democratic party. Between his 9th and his 13th year and having read Pope's *Homer,* the youth attempted an epic in imitation of the older work, actually completing as much as one book of a continuation of the *Iliad.* Essential elements of intelligence, such as facility in invention, maturity of association, comprehension, and logical reasoning are fundamental to performances of this nature. Their significance is peculiarly striking when the activities in which they appear are carried on as free pursuits. In addition to his literary and mathematical activities young Mill was at the same period, enthusiastically engaged in a study of the theory of experimental science and logic. This study, begun at the age of 12 and carried on under the tutelage of James Mill, gave the boy a far more thorough and severe training than the usual college course of today. "The really

important part of [Mill's] education was the association with the strenuous character and vigorous intellect of his father," and the most important evidence of the son's ability is the fact that his father found him at the early age of 11 a capable assistant and co-worker in difficult historical or economic writing.

Mill's activities at the age of 12 were comparable to those of the second or third college year. In addition to a study of the higher mathematics and logic he read Latin and Greek works, especially "those significant for thought as well as language." At 13 he advanced to political economy which he continued during the following year also. He prepared notes from his daily conversations with his father which served the latter as a basis for the first draft of his *Elements of Political Economy.* The boy had further to detect the fallacies in Adam Smith's system by comparing it with the reasoning in Ricardo's work. "I thought for myself almost from the first," says Mill.

The rigor with which the youth (aged 14) carried out a self-imposed program of study when far removed from parental jurisdiction, and the nature of the studies he so energetically pursued, indicate in him the persistent interest and the capacity for severe self-discipline characteristic of a mature scholar. Mill's activities at 15 and 16 were no less distinguished. The chronicle of his formal studies, the record of his numerous essays (published and unpublished), and the account of his participation in the founding of the Utilitarian Society, complete the evidence in this unusual case.

The analytical powers displayed by Mill at a very early age were not exceeded by any of our other subjects so far as reported. And Mill's earliest productions gave evidence of precocity as striking as any we have found. But in many of our cases rated above 125 IQ and in most of those rated above 145 IQ, we noted indications of the presence of gifts equal or even superior to his. And in some of these records there was no contradictory evidence. The low ratings in such cases indicate nothing more than the fact that the raters regressed toward the mean (IQ 100) not because the rating was definitely limited by the evidence, but rather because the information was indefinite or insufficient. Thus Mill is rated above Voltaire and Goethe, because the IQ

estimated from incomplete historical records is not an adequate measure of spontaneity and intellect. He is rated above Leibnitz and Grotius, because the estimated IQ is not an adequate measure of universality of interest and significance of achievement. He is rated above Pascal, because the estimated IQ is not an adequate measure of originality. Mill's AII IQ (170) indicates more nearly than the AI his relative position as compared with the more brilliant geniuses.

It may be stated here that wherever the IQ estimates of two or more raters have conspicuously differed, the disparity has been due to a lack of adequately standardized norms by which available evidence could be judged or else to a lack of definite statements in regard to the particular forms of mental activity for which adequate standards are available. These defects are sometimes corrected by the AII IQ ratings because the latter are based on more information, sometimes on much more, than the AI ratings. The records upon which the AII ratings are based add the chronicle of the period from the age of 17 to 26 to the more completely "itemized" report of the first 17 years. Hence the AII ratings for the various members of the group may often approach the true IQ scores more nearly than the AI ratings; and they may be more adequate measures of relative standing.

Mill's AII IQ is 170. Fifteen cases are rated above him, including Berkeley, Davy, Melanchthon, Schelling, Voltaire, Grotius, Leibnitz, and Goethe. Had the records of these youths been as complete as Mill's, or had comparable and adequate tests been made of both, the obtained AI IQ rating would have been without doubt higher in every case. Although Mill probably belongs, with the other youths named, to the select group whose true IQ was above 160, there is a level of intellectual power and of creative endowment and insight which he did not reach; nor did he in childhood and youth give evidence that he would reach it. Certain others of the group reached this level. Relatively, Mill's first rating is too high, but as a measure of his performance, in terms of intelligence norms, it is not too high. The second rating indicates that his later achievement was less striking than that of many other youths. If we could venture to assign to

these others IQ's above 200—and the evidence shows their closer relationship in intelligence to the highest IQ reported in recent literature (214)[1] than to any other clinical case—Mill would retain his place at 190 IQ on the first rating and would reach that level on the second rating also, for he belongs without question to Galton's *X* grade of the "illustrious"; and in the IQ distribution of the human race his place is undoubtedly beyond 6 S.D.

AII IQ 190

(Two cases. Average reliability coefficient of data, .75.)

Since the two cases included here give evidence of higher intelligence than any (except one case) in the study, they are both reported at some length.

Leibnitz studied law, mathematics, and philosophy at the Universities of Leipzig, Jena, and Altdorf from his 16th to his 21st year. Before he was 17 he had received the Bachelor's degree and written a treatise, *De Principio Individui.* At 18 he received the Master's degree and wrote *Specimen Difficultatis in Jure.* At 19 he wrote *Specimen Certitudinis in Jure.* At 20 he was refused the Doctorate at Leipzig because of his youth; but he was awarded the degree by the University of Altdorf later in the same year. Before he was 21 he had written five Latin dissertations. In his 21st year he became the secretary of the Society of Rosicrucians and before the year ended he had entered the service of the Elector of Mainz. During the next seven years he was occupied with literary and political labors, making significant contributions in many fields. After fulfilling various responsible missions in which his ability and success did not pass unnoticed but in which he remained without official recognition, Leibnitz at 24 was named Councillor in the Upper Revision College in Mainz. His varied activities continued unabated.

The account of Leibnitz' progress from the age of 17 to that of 26 is scarcely to be equalled in the annals of many nations in many ages. There are indications in the record of his childhood and youth of political, philosophical, scien-

[1] Stedman, Lulu M., *Education of Gifted Children,* New York, World Book Co., 1924.

tific, and literary genius. The rating of 190 IQ is not too high. It may be far too low.

Grotius began to practice law at the age of 17 and soon was pleading before the highest tribunal of the land. Before he was 18 he had written an historical poem of some length and had published the *Phænomena of Aratus,* containing Greek and Latin texts to which the young editor had added notes and appropriate Latin verses. The leading scholars of Europe, including Scaliger, Thou, Lipsius, Casaubon, and Vulcanus, "voiced their praise of the boy who at 17 had published such a book." The learned Vossius, comparing the youth to Erasmus, declared that "the whole world could not produce a more learned man than Grotius." The *Prosopopeia,* an occasional piece published anonymously, was so well thought of that it was ascribed to Scaliger. French poets translated it into French and Casaubon put it into Greek. At 18 Grotius won universal praise on the appearance of his first tragedy *Adamus Exul.* Before he was 19 the young celebrity was chosen historiographer of the United Provinces over the head of Baudius, Professor in the University of Leyden. From the age of 19 to 21 Grotius was actively engaged in legal and literary work. At 21 his legal reputation was so great that he was called upon to aid in settling an important state question. In his 22nd and his 23rd years Grotius was engaged in preparing a substantial work, *De Jure Praedae.* By this time it almost seemed "as though the learned men of Holland were afraid of the tremendous intellect of the young scholar." Professor Baudius, on seeing young Grotius unexpectedly entering his classroom was so overcome with terror from the "extraordinary presence" that "he had got lockjaw" and was unable to carry his lecture to a satisfactory conclusion. At the age of 24 Grotius was made Attorney General of the Court of Holland, Zeeland, and Friesland. At 25 he prepared for publication a portion of his discussion *De Jure Praedae,* the famous *Mare Liberum.* The same year the youth published his second tragedy, *Christus Patiens* which was greatly admired by Casauban; and Sandes translated it into English. The book was praised by many scholars as "a model of perfect tragedy."

In the case of Grotius as in that of Leibnitz rare genius is the only explanation for a meteoric rise by genuine

achievement of the highest order to a position of extraordinary eminence. The true IQ of young Grotius may well have been above 200.

AI IQ 195
(No cases)

AII IQ 195
(No cases)

AI IQ 200
(No cases)

AII IQ 200

(One case. Reliability coefficient of data, .82.)

An estimated AII IQ of 200 was obtained in a single case, one, however, for which the early records are unusually complete. The intellectual achievement of young Goethe and the rapidity of his mental development were so extraordinary that they are discussed here at some length.

From his 17th to his 23rd year Goethe was enrolled as a student of law at the University of Leipzig and later at the University of Strassburg. In addition to his juridical studies he devoted himself ardently to the pursuit of literature, art, and medicine. At 17 he wrote innumerable occasional verses in the manner of the day. At 18 he wrote much, studied much, and lived the life of an enthusiastic student of art and literature. At 18 or 19 he wrote two minor plays.

At 19 Goethe suffered a serious illness (pulmonary tuberculosis?), but his intellectual enthusiasm was undiminished. He read and wrote with scarcely an interruption. At 20 his first volume of poems was printed. While continuing his legal studies in Strassburg, Goethe found great delight in the study of art and literature; and in addition to his other pursuits he devoted as much time and energy to the study of medicine as if he were to become a physician. The eminent teacher and critic Herder (five years Goethe's senior) became the young poet's friend and mentor. At 21 Goethe wrote lyrics that have never been surpassed by any poet.

Two university professors (representing the departments of law and history) sought at about this time to turn the brilliant youth to an academic career.

Before he was 22 Goethe had prepared a dissertation for the Doctorate. But the freedom with which he here discussed a question of state policy was thought unseemly, and so he was advised to apply for the degree of Licentiate instead of that of Doctor. He prepared and defended 65 theses and thus, before the close of the year, successfully qualified for the new degree. At 22 the young jurist began the practice of his profession; but he did not neglect literature. He worked on four powerful dramatic productions, wrote essays on architecture, composed songs, and was actively engaged as a reviewer. Before he was 23 he wrote *Götz von Berlichingen* which was published (in a revised form) the following year and greeted in literary circles as the worthy production of a great creative mind and "a poem of immortal beauty."

Goethe continued his legal practice, but at 23 and 24 he was pouring the expression of his deepest experience into *Werther*, published when its author was 25. "With gigantic strides Goethe's genius had risen to highest power. . . . Nothing that he afterward accomplished could outshine the crown of glory which *Werther* laid upon his head." Before he was 26 Goethe was world-famous, for he had produced a perfect work of consummate genius.

Scales to measure the highest creative achievement are needed to give in quantitative terms an estimate of the capacity of this brilliant youth. On the basis of intelligence norms alone, the estimated rating is probably too low. One rater (M) has scored on the basis of the record of Goethe's youth an IQ of 225. Goethe's true IQ may in the history of mankind have been equalled in a few instances; one may well wonder whether it has ever been exceeded.

CHAPTER XI

CHARACTER RATINGS

Environmental Factors

Certain factors in the early environment of 100 subjects (Group C)[1] were rated in order to indicate some of the home, community, and educational influences exerted upon representative members of Group A. The *influence of home, home training and discipline, breadth of home interests, the community, current events,* and *education,* as well as the *amount and influence of travel,* and *reading* were estimated on a 4-point scale. The significance of the ratings was as follows:

(1) *Influence of home, home training, home interests, community, current events, education*

0—No influence at all
1—Slight influence
2—Considerable influence
3—Very great influence

(2) *Amount of travel and reading*

0—None at all
1—Any at all
2—Considerable
3—Much or most of the time spent in this activity.

An index of the influences rated is presented in Table 40. From the estimates recorded for the 100 representative cases (Group C) it appears that (1) the reported influence of *current events or movements,* and of *travel,* although evident, is but slight; (2) the reported influence of *home, home training and discipline, breadth of home interests, community,* and *education,* is considerable; and (3) the reported *amount of education* and of *reading,* whether literary or scientific, approaches the highest possible score. Except in the case of *current events,* the degrees of *influence* correlate positively with the AII IQ's. This may be interpreted to

[1] For a description of the makeup of Group C, cf. Chapter III, pp. 31 f.

TABLE 40

INDEX OF ENVIRONMENTAL INFLUENCES FOR EACH OF FIVE AII IQ GROUPS

AII IQ	100 to 115 (Number of cases 2)		120 to 135 (Number of cases 17)		140 to 155 (Number of cases 49)		160 to 175 (Number of cases 27)		180 to 200 (Number of cases 5)	
	Index of influence	Number reported	Index of influence	Number reported	Index of influence	Number reported	Index of influence	Number reported	Index of influence	Number reported
1. *Home influence*	.1	(2)	1.3	(16)	1.4	(45)	1.9	(26)	2.8	(5)
2. *Home training and discipline*	–	(0)	2.0	(13)	1.9	(39)	2.3	(21)	2.6	(5)
3. *Breadth of home interests*	–	(0)	2.0	(7)	1.5	(29)	2.6	(16)	3.0	(5)
4. *Community influence*	–	(0)	1.4	(14)	1.9	(42)	2.3	(24)	2.6	(5)
5. *Current events or movements*	–	(0)	1.4	(16)	1.2	(38)	0.8	(22)	1.8	(5)
6. *Travel*	.5	(1)	1.0	(17)	1.3	(49)	1.3	(27)	1.4	(5)
7. *Education (amount of)*	.2	(1)	1.6	(17)	2.2	(47)	2.6	(27)	2.8	(5)
8. *Education (influence of)*	–	(0)	1.1	(9)	1.4	(37)	2.0	(25)	2.0	(5)
9. *Reading, literary*	–	(0)	1.4	(8)	2.5	(27)	2.6	(17)	2.6	(5)
10. *Reading, scientific*	–	(0)	2.1	(7)	2.6	(32)	2.9	(23)	3.0	(4)

indicate (1) the dependence of ability upon environment or (2) the dependence upon ability of the degree to which opportunity is grasped. Probably both interpretations are justified to some extent. In any case, the group of 100 youths have had, as a rule, superior advantages, and have, as a rule, derived greater benefit from them than other individuals of less ability ordinarily do.

Interests

The following types of interest were rated:

(1) *Intellectual interest*—evidence of an urge toward mental activity in the direction of generalization and the derivation of universal laws.

(2) *Social interest*—evidence of an urge to participate in activities with other human beings.

(3) *Activity interest*—evidence of an urge to do, to act, to create, to make changes in the existing order.

(4 to 7) *Breadth of distinct and of related interests* and their *intensity* were also rated.

A seven-point scale $+3$ to -3 with a 0 average[1] was used: $0 =$ average; $+1 =$ slightly above average; $+2 =$ considerably above average; $+3 =$ the highest degree of interest.

An index of the interests rated with the average group scores is presented in Table 41 (p. 168). Statistical treatment of the ratings yielded the following conclusions:

(1) No individual rating on *intellectual interest* is below $+1$; i.e., more than average interest in mental activities is evident in each case. (2) In *social* and *activity interests* the group rates considerably above the average. (3) *Breadth of distinct interests* is slightly above the average; *breadth of related interests* is considerably above the average. (4) *Intensity of two or more interests* is slightly above the average; *intensity of a single interest* approaches the upper limit. (5) *Intellectual interest* and *breadth of distinct and of related interests* correlate positively with intelligence. (6) *Social* and *activity interests* show a slight negative correlation with intelligence, but none of the ratings fall significantly below average. This may be an indication that factors other

[1] The 0 average is the average for unselected youths and not the average of this group.

TABLE 41

INDEX OF INTERESTS—KIND, BREADTH, AND INTENSITY—FOR EACH OF FIVE AII IQ GROUPS

AII IQ	100 to 115 (Number of cases 2)		120 to 135 (Number of cases 17)		140 to 155 (Number of cases 49)		160 to 175 (Number of cases 27)		180 to 200 (Number of cases 5)	
	Index of interest	Number reported	Index of interest	Number reported	Index of interest	Number reported	Index of interest	Number reported	Index of interest	Number reported
1. *Intellectual*	1.0	(1)	2.0	(12)	2.5	(49)	3.0	(27)	3.0	(5)
2. *Social*	2.0	(1)	2.5	(14)	2.0	(47)	1.7	(26)	1.4	(5)
3. *Activity*	2.0	(1)	2.4	(16)	2.4	(47)	1.8	(27)	1.6	(5)
4. *Breadth of distinct interests*	–	(0)	.4	(11)	1.4	(47)	1.6	(27)	1.6	(5)
5. *Breadth of related interests*	2.0	(1)	1.0	(11)	2.0	(41)	2.3	(26)	2.4	(5)
6. *Intensity of a single interest*	3.0	(1)	2.2	(14)	2.4	(48)	2.8	(27)	3.0	(5)
7. *Intensity of two or more interests*	0	(1)	.2	(11)	.9	(40)	1.2	(25)	1.0	(4)

than the intellectual make for eminence, and that a greater *social* or *activity interest* may offset, in the achievement of eminence, a lesser interest in *intellectual* matters.

Rating of Character Traits

The 100 cases included in Group C, arranged in a chance order, were rated by two raters (Mk and C[1]) on 67 character traits,[2] each trait being rated on a 7-point scale (+ 3 to − 3) whose midpoint (0) represents the possession of an average amount of the trait in question. The steps of the trait-rating scale were defined as follows:

+ 3 denotes the possession of a very high degree of the quality as compared with the average.
+ 2 denotes the possession of a degree of the quality distinctly above the average.
+ 1 denotes the possession of a degree of the quality slightly above the average.
0 denotes the possession of the average degree of the quality among youths in general.
− 1 denotes the possession of somewhat less than the average.
− 2 denotes the possession of distinctly less than the average.
− 3 denotes the lowest degree of the quality as compared with the average.

The list was compiled and adapted from Webb's traits,[3] to which were added certain traits for the rating of which evidence was frequently available in the biographical material. The two raters were instructed to give a rating on each trait. Where the evidence was insufficient to warrant an estimate of a deviation from the common mean, a rating of 0 was given.

In any unselected group the average rating on each trait, and hence the average of all of the traits together for the

[1] "Mk"—Mary Meyrick, formerly Principal, The Washburn School, San Jose, California (coeducational college preparatory school). "C" is the writer.

[2] For the list of traits, arranged in the order in which the ratings were made, see pp. 172 ff.

[3] Webb, Edward, "Character and Intelligence," *British Journal of Psychology, Monograph Supplement*, Cambridge University Press, 1915, Vol. I, No. III.

entire unselected group, should equal zero. In any group the appearance of an average on a single trait significantly above or below the common average 0, is evidence of a peculiarity within the group which differentiates its members from unselected individuals. If the group measured is sufficiently large, and if the measurement is reliable, averages will indicate characteristic traits. The correlation of the two series of ratings (by the two raters) for each subject is a measure of the reliability of the ratings. The reliability of the data as a basis for trait ratings was not estimated.

Arranging the cases according to the size of the higher of the two reliability coefficients for the data on which the IQ rating was based (whether this was on rating I or on rating II) gives the sequence of correlations between the trait ratings of the two raters presented in Table 42.

TABLE 42

RELIABILITY OF TRAIT RATINGS BY TWO RATERS (C AND MK)

Rel. coeff. of data for IQ rating	Name	Rel. coeff of trait rating
.82	Bunsen	.68
	Byron	.51
	Canning	.55
	Cavour	.78
	Chatterton	.83
	Coleridge	.54
	Davy	.60
	Goethe	.76
	Hugo	.43
	Lamartine	.56
	Macaulay	.40
	Mill	.58
	Milton	.59
	Pitt (younger)	.62
	Schelling	.49
	Scott	.30
	Tennyson	.34
.82	Ave. (17 cases)	.56
.75	Arago	.55
	Agassiz	.56
	Brougham	.41
	Bulwer	.45
.75 (*cont.*)	Carlyle	.70
	Chalmers	.60
	Channing	.46
	Chateaubriand	.46
	Comte	.52
	Cousin	.72
	Cuvier	.64
	Danton	.58
	Descartes	.44
	Fichte	.71
	Fox, C. J.	.54
	Grant	.61
	Guizot	.53
	Humboldt, A.	.57
	Jefferson	.75
	Leibnitz	.66
	Liebig	.56
	Lincoln	.32
	Mirabeau	.46
	Mozart	.38
	Napoleon	.68
	Nelson	.54
	Niebuhr	.63
	Peel	.39

TABLE 42—*Continued*

Rel. coeff. of data for IQ rating	Name	Rel. coeff. of trait rating
.75 (*cont.*)	Sand	.47
	Schiller	.47
	Schleiermacher	.52
	Voltaire	.41
	Washington	.70
	Wordsworth	.46
.75	Ave. (34 cases)	.54
.60	Burke	.75
	Burns	.49
	Dickens	.39
	Disraeli	.24
	Étienne	.21
	Franklin, B.	.54
	Gay-Lussac	.60
	Hamilton, A.	.51
	Hegel	.42
	Herschel	.81
	Lamennais	.74
	Laplace	.56
	Newton	.59
	Penn	.75
	Prescott	.49
	Rossini	.44
	Staël	.52
	Weber	.58
	Webster	.38
	Wesley	.36
.60	Ave. (20 cases)	.53
.53	Bacon	.66
	Cobden	.57
	Darwin	.34
	Gibbon	.56
.53 (*cont.*)	Haydn	.26
	Mazzini	.53
	Rousseau	.73
	Thiers	.53
	Wagner	.63
.53	Ave. (9 cases)	.53
.43	Beethoven	.13
	Calvin	.72
	Canova	.50
	Fouché	.18
	Garibaldi	.63
	Jackson	.60
	Kant	.43
	Locke	.53
	Luther	.45
	Marmont	.67
	Michelangelo	.55
	Molière	.58
	Murat	.49
	Ney	.58
	Raphael	.38
	Reynolds	.39
	Robespierre	.44
.43	Ave. (17 cases)	.49
.20	Cromwell	.31
.20	Ave. (1 case)	.31
.11	Hogarth	.54
	Murillo	.58
.11	Ave. (2 cases)	.56

The average of the 100 reliability coefficients of the trait ratings is .53. The range is from .13 (Beethoven) to .83 (Chatterton). There is a slight positive agreement between the size of the reliability coefficients of the data upon which

the IQ estimates were based and the size of the reliability coefficients of the trait ratings. This indicates that the data more adequate as a basis for rating one factor were also more adequate as a basis for rating others.[1]

The reliability of the raters was measured by the correlation (Pearson product moment) between first and second ratings of the same cases. C averaged a reliability index of .80 on eight cases for which the highest reliability coefficient was .86, the lowest .72. Mk's reliability (on four cases) was .76.

From the most reliable trait ratings in each subgroup, average subgroup trait ratings have been obtained for the following: the Highest IQ's (rel. coeff. of trait ratings, .80) the Lowest IQ's (rel. coeff. of trait ratings, .71) the First Ten in eminence (rel. coeff. of trait ratings, .83), the Last Ten in eminence (rel. coeff. of trait ratings, .73); also for each of the following 11 subgroups by field: Artists (rel. coeff. of trait ratings, .80), Musicians (rel. coeff. of trait ratings, .67), Philosophers (rel. coeff. of trait ratings, .81), Religious Leaders (rel. coeff. of trait ratings, .73), Revolutionary Statesmen (rel. coeff. of trait ratings, .74), Scientists (rel. coeff. of trait ratings, .71), Statesmen and Politicians (rel. coeff. of trait ratings, .77), Soldiers (Fighters) (rel. coeff. of trait ratings, .80), Soldiers (Statesmen) (rel. coeff. of trait ratings, .69), Writers (Essayists, Historians, Critics, Scholars) (rel. coeff. of trait ratings, .74), and Writers (Poets, Novelists, Dramatists) (rel. coeff. of trait ratings, .77).

The 67 traits rated are defined in the following schedule:

SCHEDULE OF 67 TRAITS

1. *General tendency to be cheerful (as opposed to being depressed and low-spirited).* Seeing the bright side.

2. *Absence of the tendency to quick oscillation between cheerfulness and depression (permanence of mood).* Not easily taken from one mood to the other.

3. *Absence of an occasional liability to extreme depression.* Absence of liability to a pessimistic view, to be obsessed with gloom.

[1] A small number of the original case studies was prepared with only the IQ rating in mind. Some of these gave a satisfactory basis for an IQ rating without contributing sufficient material for reliable trait ratings. The presence of these, whose reliability as a basis for rating the IQ is high while their reliability as a basis for trait rating is low, diminishes the correlation between the two reliabilities. But this is a minor consideration.

4. *Absence of the liability to anger.* Tendency not to flare up on slight provocation. Even temper.

5. *Absence of the liability to be fearful (anxious).* Tendency not to find causes of worry or grievance and not to brood over cares or grievances.

6. *Tendency to be imaginative.* Degree to which he invents fanciful situations in which he himself plays an important rôle. In its highest degree a tendency to confuse the real with the unreal.

7. *Degree of esthetic feeling.* Love of the beautiful for its own sake. Appreciative enjoyment of beauty in any form.

8. *Degree of sense of humor.* Appreciation of the ridiculous or incongruous. Readiness to make a joke or see one.

9. *Desire to excel at performances (whether of work, play, or otherwise) in which the person has his chief interest.* Desire to do well, whether to excel others or for the work's sake.

10. *Desire to impose his own will on other people.* Desire to be a leader, whether autocratically or by persuasion.

11. *Absence of eagerness for the admiration of the crowd.* Absence of enjoyment of the limelight and of applause. Not playing to the gallery.

12. *Belief in his own powers.* Self-confidence. Degree to which he feels equal to any task undertaken.

13a. *Esteem of himself as a whole.* Tendency to rate his own abilities correctly.

13b. *Esteem of his special talents.* Tendency to rate them correctly.

14. *Absence of offensive manifestation of self-esteem (supercilliousness).* Absence of the tendency to exhibit a sense of superiority to others in a contemptuous way.

15a. *Fondness for large social gatherings.* Desire to be with large groups or gatherings.

15b. *Fondness for small circle of intimate friends.* Seeking the society of a chosen few.

16. *Fondness for companionship as opposed to solitariness,* whether as defined in 15a or 15b.

17. *Impulsive kindness.* (To be distinguished from No. 18.) Being kind naturally on the spur of the moment without previous thought.

18. *Tendency to do kindnesses on principle.* (As a conscious moral ideal. Habitual.)

19. *Degree of corporate spirit (in whatever body interest is taken, e. g., college, school, country, native place).* Working or playing for the group rather than for his own advantage.

20. *Trustworthiness.* Keeping his word or engagement, performing his believed duty at all times, whether convenient or not.

21. *Conscientiousness.* Keenness of interest in the goodness and wickedness of actions. Discrimination between right and wrong in thought and action.

22. *Interest in religious beliefs and ceremonies (regardless of denomination).* Interest in discussion of religious questions whether as a defender or skeptic.

23. *Absence of readiness to accept the sentiments of his associates.* Not swimming with the stream, but having his own independent opinions. Skepticism, as opposed to acquiescence.

24. *Desire to be liked by his associates.* Caring for the approval of his friends. More anxious to please than to offend.

25. *Wideness of his influence.* The extent to which he makes his influence felt among his fellows whenever he speaks or acts. Tendency for his acts and words to attract notice or mould sentiment.

26. *Intensity of his influence on his special intimates.* Making a lasting impression on a small group of those who really know him.

27. *Degree of tact in getting on with people.* Natural diplomatic ability in dealing with people.

28. *Extent of mental work bestowed upon usual studies.* Not success, but work done. Time spent and interest in routine work.

29. *Extent of mental work bestowed upon pleasures (special interests, hobbies, extra-curricular studies).* Actual time and energy devoted to mental or physical activities outside of school requirements.

30a. *Degree of bodily activity during school or business hours.* Energy or restlessness displayed.

30b. *Degree of bodily activity in pursuit of pleasures (games, sports, etc.).* Physical energy displayed.

31. *Tendency to self-expression in action rather than in thought.* Hyperkinetic *vs.* hypokinetic. Doing something, rather than thinking something about it.

32. *Degree to which he works with distant objects in view (as opposed to living from hand to mouth).* Active preparation for later life. Working toward a definite goal.

33. *Tendency not to abandon tasks in the face of obstacles.* Perseverance, tenacity, doggedness.

34. *Tendency not to abandon tasks from mere changeability.* Not seeking something fresh because of novelty. Not "looking for a change."

35. *Quickness of apprehension.* Speed in recognition of the significance of things. Readiness to understand a new situation or problem.

36. *Profoundness of apprehension.* Thoroughness and comprehensiveness without respect to quickness.

37. *Soundness of common sense.* Degree of practical response to immediate demands. Good, sound, reliable, balanced judgment.

38. *Originality of ideas.* Independence of thought, creativeness, tendency to have intellectual interests independent of his group. Dependence on his own mind; using previous knowledge in a new way.

39. *Pure-mindedness.* Extent to which he shuns vulgarity or immorality.

40. *Skill in, and devotion to athletics, sports, or physical feats.*

41. *Physique.* Soundness of bodily constitution. Good health.

42. *Degree of strength of will or perseverance.* Quiet determination to stick to a course once decided upon.

43. *Degree of excitability (as opposed to being phlegmatic).* Tendency to become heated in argument or to display undue enthusiasm.

44. *Sensitiveness to criticism.* Degree to which his comfort and actions depend on the expressed opinion of others.

45. *Degree to which action and thought are dependent on reason.* Tendency to think out procedure rather than to act impulsively.

46. *Sense of corporate responsibility (whether to family, school, moral or religious superior, or ideal).* Tendency to do his duty rather than to follow personal inclination; opposite of individualism.

47. *Degree of introversion.* Tendency to live within himself in a world of thought rather than in an external world of action.

48. *Strength of memory.* Degree of retention. Facility in reproduction.

49. *Self-criticism.* Tendency to analyze and criticize his own thoughts and acts, to study or rate his special abilities and his mental or spiritual traits.

50. *Balance.* Degree to which the traits of his character harmonize and supplement one another. Absence of extremes, contradictions, and abnormalities of personality.

51. *Sense of justice.* Degree of ability to see and judge personal or group relations. Ability to see the justice or injustice of his own or another's cause.

52. *Family affection.* Degree of affection for one or more members of the family as such.

53. *Friendship or affection for members of the same sex.* Number and intensity of such friendships.

54. *Friendship or affection for members of the other sex.* Number and intensity of such relations.

55. *Loyalty* to friend or cause. (*Not* devotion to subject of special interest, etc.)

56. *Physical bravery.*

57. *Punctilious behavior.* Gentlemanliness; formal courtesy.

58. *Neatness, accuracy, attention to detail.*

59. *Reserve.* Tendency to remain silent on matters of personal concern. Opposite of effusiveness.

60. *Forcefulness.* Strength of character as a whole.

61. *Conventionality.* Observance of accepted standards. Performance of usual acts. Conformity to usual modes of behavior in general.

62. *Constancy in friendship for persons of the same sex.* (Not merely for relatives as such.)

63. *Constancy in affection for persons of the opposite sex.* (Not merely for relatives as such.)

64. *Keenness of observation.*

The 67 traits may be grouped as follows according to the character element that (theoretically) predominates in each case:

Emotional	14	*Intellectual-Emotional*	2
Emotional-Social	5	*Intellectual-Activity*	2
Social	15	*Activity (persistence of motive)*	4
Self (negative)	2	*Physical activity*	6
Self (positive)	5	*Strength or force of character*	1
Intellectual	8	*Balance*	1
Intellectual-Social	2		

The *emotional* element is primary or secondary in 21 traits, the *social* element in 22, the *self* element (positive or negative) in 7, the *intellectual* element in 14, and the *activity* element in 12. The two composite traits, *balance* (trait 50) and *strength of character* (trait 60), probably include something of each of the other elements, but they are not included in these totals. The classification of traits adopted is somewhat arbitrary; other equally logical classifications could be developed. Justification of the present arrangement for our purpose lies in a certain homogeneity in the distribution of ratings within the respective subgroups and in the contrasts between subgroup profiles.

The obtained ratings and the resultant personality profiles for the entire group and for subgroups are discussed in Chapter XII.

CHAPTER XII

ANALYSIS OF CHARACTER RATINGS

Is there a typical *youthful genius?* Does he differ from the average youth in other than intellectual traits? Does the character profile of the boy or young man who becomes a distinguished statesman differ from that of the youth who becomes an eminent musician? Are the profiles of these types more like each other than they are like that of the average youth of either type who achieves no more than average success in the field of his special interest or activity? In the following pages the evidence contained in the records of the early years of our eminent men is briefly summarized in so far as it bears upon these questions.

The trait profile for the group as a whole (Group C)[1] is described and analyzed and certain typical subgroups are briefly characterized on the basis of their trait scores.

The Trait Profile of 100 Youthful Geniuses (Group C)

From the individual profiles of 100 cases two group profiles have been calculated: (1) an average of the averages for 11 subgroups of Group C (by field or profession); (2) a weighted average in which each of the 11 subgroups was assigned its proper weight as representative of Group A. The agreement between the two profiles proved to be almost complete: no difference appeared between the ratings on 28 traits, a difference of .1 appeared on 33 traits, of .2 on five traits, and of .3 on one trait. We may therefore assume that the trait profile for Group C is a typical historiometric trait profile of a group of youthful geniuses who become eminent men. The average rating of Group C for all of the 67 traits is + 1.2, indicating that the members of the group are perceptibly above the common average in the possession of 67 good traits. Exceptions are in two *emotional* traits, (3) *absence of an occasional liability to extreme depression,* and

[1] See pages 31 f. for the constituency of Group C. The members of the group are starred in Table 12A, column 8.

(4) *absence of the liability to anger,* in one *negative self* trait, (11) *absence of eagerness for the admiration of the crowd,* and in one *social* trait, (61) *conventionality,* where the ratings are below the common average, but not significantly so. The averages for the trait groups for Group C as a whole and when arranged in order of magnitude, are as follows:

Trait	Ave. rating	Number of traits
Activity (persistence of motive)	+2.3	4
Intellectual activity	+2.0	2
Self (positive traits)	+2.0	5
Strength or force of character	+2.0	1
Intellectual	+1.8	8
Social	+1.2	15
Intellectual-Social	+1.1	2
Balance	+1.0	1
Emotional-Social	+1.0	5
Intellectual-Emotional	+ .9	2
Physical activity	+ .6	6
Emotional	+ .5	14
Self (negative traits)	+ .1	2

The averages for the entire group of 100 young geniuses of traits in which each of the several trait-elements appears, are as follows:

Trait	Ave. rating	Number of traits
Total for *strength or force of character*	+2.0	1
Total for *activity*	+1.8	12
Total for *intellectual*	+1.6	14
Total for *self (positive and negative)*	+1.5	7
Total for *social*	+1.1	22
Total for *balance*	+1.0	1
Total for *emotional*	+ .7	21

It appears from the two classifications presented above that a trait profile characteristic of a group of youthful geniuses who become Eminent Men is (1) at or above the average in each of 67 good traits; (2) slightly above the average in favorable *emotional* traits; (3) noticeably above the average in *balance* and in *sociality;* and (4) distinctly above the average in *self* qualities, in *intellectuality,* in *activity* (including *intellectual activity* and *persistence*), and in *strength or force of character.*

In the character side of mental activity Webb[1] has found indications of a "second general factor to be distinguished from the intelligence factor." The presence of this element, which is defined as "consistency of action resulting from deliberate volition," explains the position of *activity* in the schedule above. It is the predominant element in five traits: (18) *kindness on principle,* (20) *trustworthiness,* (21) *conscientiousness,* and (33 and 34) *persistence of motive.* It is conspicuously absent in three traits: (negative of 4) *readiness to become angry,* (negative of 11) *eagerness for admiration,* and (30b) *bodily activity in pursuit of pleasure.*

The ratings for youthful geniuses average + 1.7 for the first five traits above: i.e., in Webb's second general factor, "consistency of action resulting from deliberate volition," the group of 100 representative geniuses rates at just the same point as it does in the *intellectual traits.* At the same time the average for the entire group on the three traits in which consistency of action is conspicuously absent is + .1, or 1.1 below the general average of the same individuals on all traits. In the *activity* group of traits the consistency of action factor is heavily weighted, hence the position of this group of traits at the head of the list.

In 22 individual traits Group C is distinguished from the common average by a rating above + 1.5; i.e., a rating nearer to + 3, the upper extreme, than to 0, the common mean of all traits for unselected individuals. The 22 traits include six of the eight *intellectual* traits both of the *intellectual-activity* traits, all of the five *positive self* traits, all of the four *persistence of motive* traits, and two *social* traits. Four of the five *persistence of motive* traits are included, two of these being the only two *social* traits appearing in the 22 distinguished traits.

In conclusion, the trait profile of the youths of Group C indicates some boyhood characteristics of young geniuses. It indicates that they rate high in *intellectual, social,* and *activity traits,* while the *emotional* side of personality is, on the whole, not distinctly other than that of an unselected group. *Forcefulness or strength of character as a whole, persistence of motive,* and the *intellectual* traits rate conspicuously high. The high scores on all traits containing the

[1] Webb, *Character and Intelligence.*

persistence of motive factor, and the *intellective* factor indicate that young geniuses possess these traits to an unusual degree. These and the summation trait of *strength or force of character as a whole* are the traits in which our subjects score the highest ratings; they appear to be peculiarly characteristic of young geniuses. The estimates on the *self* traits and the *persistence* traits corroborate those on *forcefulness or strength of character as a whole,* emphasizing the presence of dynamic vigor of character and an innate assurance of superior ability in all of the members of the group. Finally, it is perhaps significant that the single trait that rates highest among our representative youthful geniuses is *desire to excel.*

We may conclude that the following traits and trait elements appearing in childhood and youth are diagnostic of future achievement: an unusual degree of *persistence* —(34) *tendency not to be changeable, tenacity of purpose,* and (33) *perseverance in the face of obstacles*—combined with *intellective* energy—(28) *mental work bestowed on special interests,* (36) *profoundness of apprehension,* and (38) *originality of ideas*—and the vigorous *ambition* expressed by the possession to the highest degree of (9) *desire to excel.*

Characterization and Comparison of 15 Subgroups of Youthful Geniuses

We may now turn to the 15 subgroups of Group C, which represent typical trends within both Group A and Group C, characterizing and comparing them with the common average, with the average of Group C (hereafter called Eminent Men) and with each other. (1) A group which represents greater eminence (First Ten) is compared with one which represents less eminence (Last Ten). A group which represents the "brightest" members of Group C (Highest IQ's) is compared with one that represents the less "bright" (Lowest IQ's). (2) The typical youthful behavior is described of each of 11 groups selected on the basis of the field or profession in which eminence was achieved and the 11 trait profiles are compared and contrasted.

1) Characterization and comparison of the Intelligence and the Trait Profiles of the Last Ten (in eminence) and the First Ten, the Lowest IQ's and the Highest IQ's. A three-

fold comparison and analysis of the subgroups brings to light interesting similarities and contrasts:

(*a*) Examination of the trait deviations of each group or subgroup of geniuses from the common trait average of unselected youths indicates the presence of certain typical personality trends characteristic of youthful geniuses who achieve eminence. (*b*) A comparison with one another of each of the trait profiles of four subgroups selected from Group C indicates within the geniuses group intelligence and trait differences between the types represented by the subgroups. (*c*) A comparison of the subgroups with the main group from which they are selected (Eminent Men) emphasizes the respects in which young geniuses of various types resemble one another and the respects in which certain types differ from each other and from the group as a whole. Each of four subgroups is compared with the common average of unselected youths, with each other and with the Eminent Men (Group C) average. The results of the three comparisons are summarized in Tables 43, 44A, and 44B, and Figure 8, p. 182.

TABLE 43

FOUR TYPICAL GROUPS OF YOUTHFUL GENIUSES (INCLUDED IN GROUP C) WITH DESCRIPTIVE DATA

	Last Ten	First Ten	Lowest IQ's	Highest IQ's
Rank order of eminence (Cattell)	158.8	5.5	158	24.4
Rel. coeff. of trait profile	.73±<.046	.83±<.025	.71±<.046	.80±<.035
AI IQ.	142.5	145.5	112.5	175
Rel. coeff. of data	(.60)	(.60)	(.20)	(.75)
AII IQ	150	162.5	122.5	185
Rel. coeff. of data	(.60)	(.75)	(.43)	(.82)
Individuals included	Coleridge	Napoleon	Hogarth	Goethe
	Murat	Voltaire	Cromwell	Leibnitz
	Mazzini	Bacon	Cobden	Pitt (the
	Chatterton	Goethe	Murillo	younger)
	Danton	Luther	Murat	Schelling
	Chalmers	Burke	Ney	Voltaire
	Haydn	Newton		
	Bunsen	Milton		
	Lamennais	Pitt		
	Cobden	Washington		

FIGURE 8

TRAIT PROFILES OF GROUP C AND FOUR SUBGROUPS COMPARED

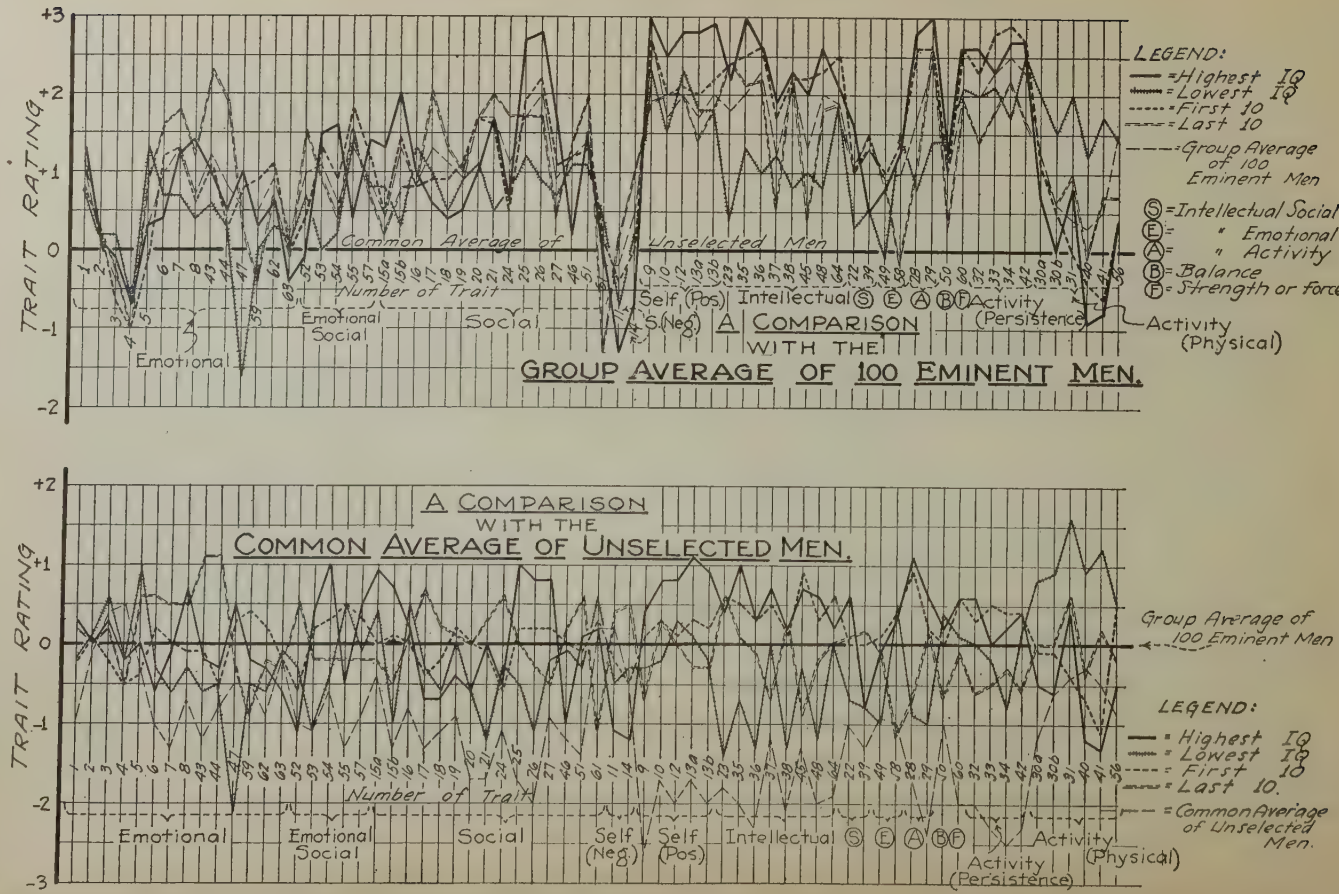


TABLE 44 A

COMPARISON OF TRAIT RATINGS OF FIVE GROUPS (AVERAGES OF TRAIT SUBGROUPS)

Trait subgroup	Number of traits	Highest IQ's	Lowest IQ's	First Ten	Last Ten	Eminent Men (Group C)
Activity (Persistence)	5	2.6	2.1	2.7	1.8	2.2
Intellectual Activity	2	2.9	1.1	2.6	1.8	2.05
Self (Positive)	5	2.8	1.9	2.2	1.8	2.0
Strength or Force of Character	1	2.6	2.1	2.6	1.9	2.0
Intellectual	8	2.3	1.05	2.3	1.7	1.8
Social	15	1.2	.8	1.1	1.2	1.2
Intellectual-Social	2	1.05	.4	1.15	1.3	1.15
Balance	1	1.2	1.4	1.0	.3	1.0
Emotional-Social	5	1.0	.6	1.1	1.0	1.0
Intellectual-Emotional	2	1.05	.7	1.2	.3	.95
Physical Activity	6	.0	1.6	.3	.7	.75
Emotional	14	.5	.2	.5	.7	.5
Self (Negative)	2	−1.0	−.25	−.2	.6	.15

TABLE 44 B

COMPARISON OF TRAIT RATINGS OF FIVE GROUPS OF EMINENT MEN (AN INDEX OF THE PRESENCE OF FIVE ELEMENTS OF PERSONALITY AND TWO COMPOSITES)

Elements or composites	Number of traits	Highest IQ's	Lowest IQ's	First Ten	Last Ten	Eminent Men (Group C)
Strength or Force of Character	1	2.6	2.1	2.6	1.9	2.0
Intellectual	14	2.05	.9	2.0	1.5	1.6
Self (Positive and Negative)	7	1.7	1.3	1.5	1.5	1.5
Activity	12	1.4	1.7	1.4	1.2	1.5
Social	22	1.1	.8	1.1	1.1	1.1
Balance	1	1.2	1.4	1.0	.3	1.0
Emotional	21	.7	.4	.7	.8	.7
Total	67	1.3	1.0	1.3	1.1	1.2

When the Last Ten[1] of Group C are compared with the generality of unselected youths, with other subgroups, and with the main group (Eminent Men), their composite trait

[1] This subgroup is the last ten from the body of Group C. It includes the last ten members with consecutive numbers. The scattering cases added to Group C in order to increase the number of artists, religious leaders, etc., have been ignored in making up this subgroup.

profile appears peculiarly significant. They may be characterized (1) as below the average of Groups A and C in estimated and probably in true intelligence; (2) as above the common average in 67 good traits; (3) as below the average of Eminent Men (but not significantly so) in *strength or force of character,* in *intellectual* traits, and in *activity* traits; (4) as probably significantly below the First Ten in *strength or force of character,* and in *intellectual* traits; and (5) as possibly significantly below both groups in *balance.* The low rating of this particular subgroup on *balance* may not be typical of the less eminent, but due rather to special factors inherent in the subgroup.

Proceeding similarly, the First Ten of Group C may be characterized (1) as above the average of Group C and Group A in estimated intelligence and conspicuously above the common average; (2) as in general above the common average in 67 good traits; (3) as probably significantly above the average of Eminent Men in *strength or force of character* and in *intellectual* traits; (4) as below the same group (but not significantly) in *activity* traits and *emotional* traits; and (5) as above the Last Ten in all trait groups except the *emotional.* (For finer discriminations see Tables 44A and 44B).

The Lowest IQ's of Group C may be characterized (1) as far below the average of Group C and of Group A[1] in estimated intelligence, but still above the common average; (2) as in general above the common average in 67 good traits; (3) as insignificantly below the average of Eminent Men, the First Ten, the Last Ten, and the Highest IQ's in *intellectual* traits, and as slightly below the three subgroups (probably not significantly) in *self, social,* and *emotional* traits; (4) as perhaps significantly above the Last Ten and the Eminent Men in *strength or force of character;* and (5) as perhaps significantly above the averages of the other four groups in *activity* and *balance.* The Lowest IQ's rate more than 30 IQ points below the Last Ten on less reliable data, although in eminence the two subgroups are equal. The trait ratings indicate that *activity* and *balance* compensate for *intellectual* traits in achieving eminence.[2]

[1] Low IQ ratings on this group are in part due to inadequate data, but cf. corrected estimates in Tables 20A and 20B.

[2] These differences may be largely due to trait ratings of 0 (average) assigned for lack of evidence.

The Highest IQ's of Group C may be characterized (1) as far above the average of Group C and of Group A in *intelligence;* (2) as in general above the common average in 67 good traits; (3) as probably significantly above the average of Eminent Men in *strength or force of character* and in *intellectual* traits; (4) as above the same group (but not significantly so) in *self* traits and in *balance,* and as below the same group (but not significantly so) in *activity* traits; (5) as the only one of the five (Group C and four subgroups) which rates higher on *intellectual activity* than on any other trait; and (6) as rating higher than any other of the five except the First Ten on the general factor *persistence of motive.*

Let us turn now to a comparison of the Highest IQ's and the First Ten. On the four groups of traits on which the Eminent Men rate highest, the Highest IQ's rate proportionally higher than do any of the other four groups, the First Ten being a close second. On the three groups of traits on which the Eminent Men rate lowest, the Highest IQ's rate lower, and again the First Ten approximate the ratings of the Highest IQ's. It appears that in just those traits whose characteristically high (or low) rating is typical of youths who become eminent men, the First Ten show greater deviations in the direction of "eminent" traits than do the average youths of Group C, while the Highest IQ's show even greater deviations in the same direction than either Group C or the First Ten.

There are 14 individual traits in which the Eminent Men rate at + 2.0 or above. On two of these the First Ten rate above the Highest IQ's; on three the ratings are equal; and on nine the Highest IQ's rate above the First Ten. The Highest IQ's rate at + 3.0 (the upper limit for the trait) on (9) *desire to excel,* (35) *quickness of apprehension,* and (29) *extent of mental work bestowed on usual studies.* Of the traits which especially characterize youths who become eminent, the two in which the First Ten rate above the Highest IQ's are (33) *tendency not to abandon tasks in the face of obstacles,* and (34) *tendency not to abandon tasks from mere changeability.* These are two of the five traits which Webb found the most accurate indices of the general factor of *persistence of motive.* In two others (18) *tendency to do kindnesses on principle,* and (20) *trustworthiness,* of the *persistence* group the First Ten again rate higher than the

Highest IQ's. In the last of the five *persistence* traits the Highest IQ's have slightly the advantage (+.1). In the three traits in which Webb's *persistence* factor is conspicuously absent the First Ten and the Highest IQ's average approximately equal ratings, with a slight indication only that here again the First Ten are more *persistent* than the Highest IQ's.

Without entering into the question of special abilities, it is possible to draw the following general conclusions:

1. Whereas young geniuses who become eminent men are characterized by the possession to a very high degree of two general factors of personality, *persistence of motive* and *general intelligence,* the First Ten (the youths who become the most eminent of all) and the Highest IQ's (the youths who earliest gave indication of superior endowment) are, with respect to the possession of one of the general factors of personality, *intelligence,* significantly above the average of a group of typical geniuses. The *intellectual* traits of the First Ten and the Highest IQ's average +2.0, while those of the Eminent Men (Group C) average +1.6. In IQ scores both subgroups rate above the Eminent Men, but not equally so, for the Highest IQ's average 30 points higher than the First Ten. With respect to the other factor, *persistence of motive,* the Highest IQ's score +1.6, rating approximately at the same point as the Eminent Men (+1.7), while the First Ten rate significantly higher (+2.0). It appears further that the Last Ten rate considerably lower than the First Ten in *intellectual* traits, but approximate the ratings of the latter (and exceed those of the Eminent Men) in *persistence* traits; while the Lowest IQ's rate below Group C and the other subgroups on *intellectual* traits and also on *persistence of motive.* The Lowest IQ's seem to compensate for these low ratings by their relatively greater *balance* and *activity.*

2. Whereas youths who become eminent men are characterized by 22 traits in which they rate nearer to the upper limit (+3.0) than to the common average, the First Ten rate, as far as these 22 "characteristics of eminence" are concerned, above the Highest IQ's in four cases, equal to them in three, and below them in 14. (In no single trait of the 22 "characteristics of eminence" is either of these two subgroups equalled by the Lowest IQ's. The Last Ten exceed the First Ten and the Highest IQ's significantly in one trait only, [21] *conscientiousness.*) The youths who have the highest native

intellectual endowment possess, then, to a greater degree more of the "characteristics of eminence" than do the youths who become the most eminent of all. This would be a contradiction in terms were it not for our first conclusion, which indicated that eminence is achieved by the possessors of *two* general factors of personality and that the Highest IQ's while outranking the First Ten in the possession of one of the two are definitely below them in the other. The Highest IQ's exceed the First Ten in (9) *desire to excel,* but they are exceeded by them in (33) *perseverance in spite of obstacles* and in (34) *tendency not to abandon tasks from mere changeability.*

The appearance within the group of "most eminent" men of individuals who, according to the records, possessed in childhood, intelligence somewhat below the highest order, is explained by this conclusion: that high but not the highest intelligence, combined with the greatest degree of persistence, will achieve greater eminence than the highest degree of intelligence with somewhat less persistence.

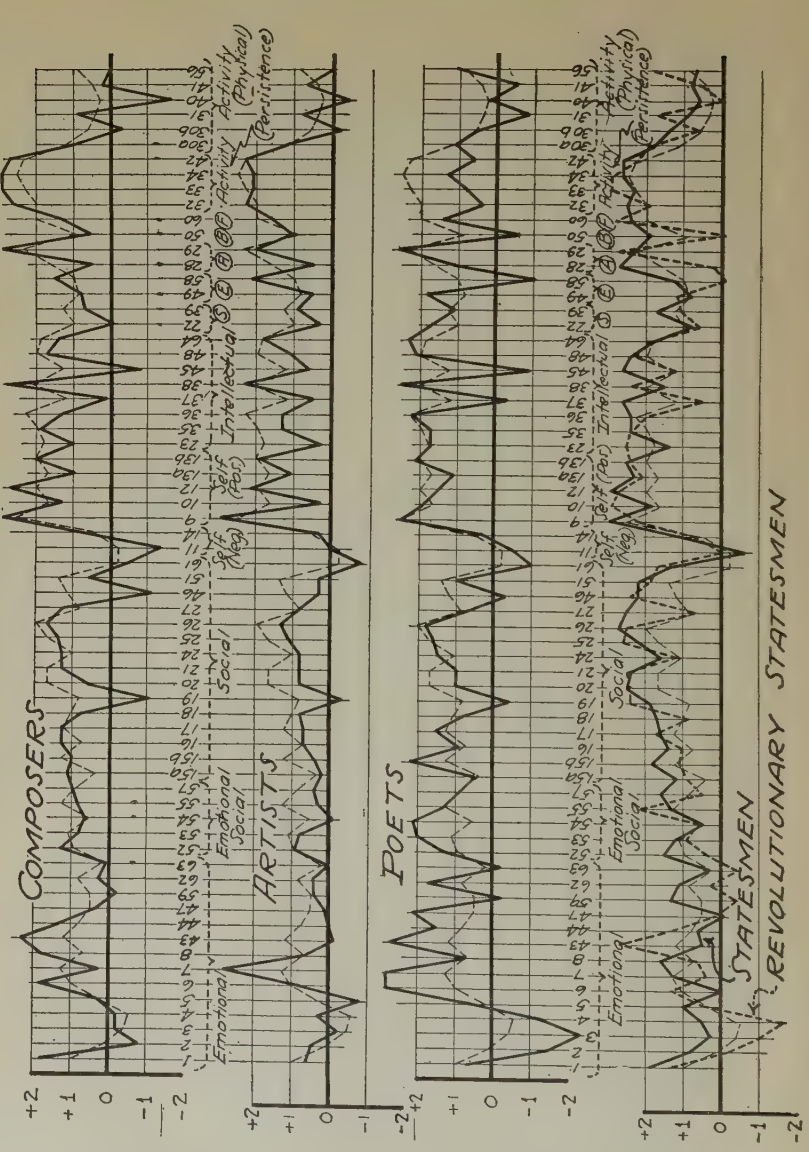
2) Characterization and Comparison of the Intelligence and the Trait Profiles of 11 subgroups of young geniuses.[1] Eleven subgroups of young geniuses who became eminent men, selected according to the 11 fields or professions in which eminence was in each case primarily achieved,[2] have been compared with reference to the "brightness" and the personality traits of their members as revealed in the records of childhood and youth. The data are summarized in Tables 45A, 45B, 46, 47, and 48, and Figures 9 and 10 (pages 188–89 and 190–91). A brief characterization of each of the 11 subgroups emphasizes the distinctive traits of these 11 types of youthful geniuses. The groups are arranged according to the order of magnitude of the averages of the 67 traits

[1] The eleven subgroups comprise the following: Artists, Musicians, Philosophers, Religious Leaders, Revolutionary Statesmen, Scientists, Soldiers (Fighters and Statesmen), Statesmen, Writers (Essayists, Historians, Critics, Scholars), and Writers (Poets, Novelists, Dramatists).

[2] Any rigid classification according to field or profession is unsatisfactory. Nothing more has been attempted here than an objective grouping free from gross error. In order to avoid endless repetition each individual has been classified in one group only, according to the field in which eminence was primarily achieved. Errors due to the inclusion of Penn as a *Religious Leader* and not as a *Statesman,* or of Pascal as a *Scientist* and not as a *Writer,* and the like, will in the long run tend to balance and correct one another.

FIGURE 9

TRAIT PROFILES OF SUBGROUPS OF YOUNG GENIUSES, GROUPED BY FIELD OF LATER ACHIEVEMENT
COMPARISON WITH THE PROFILE OF AVERAGE UNSELECTED YOUTHS (THE 0 BASE LINE)



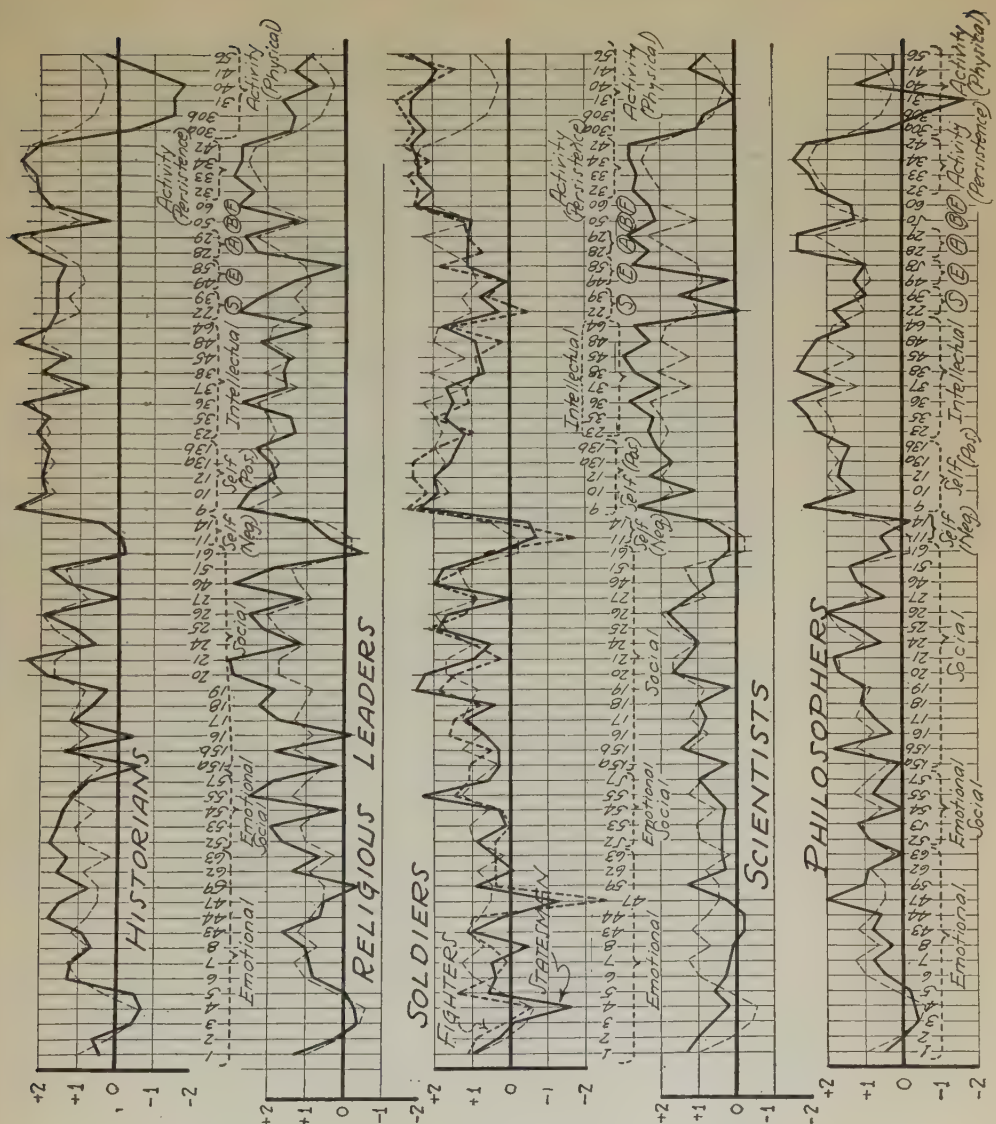
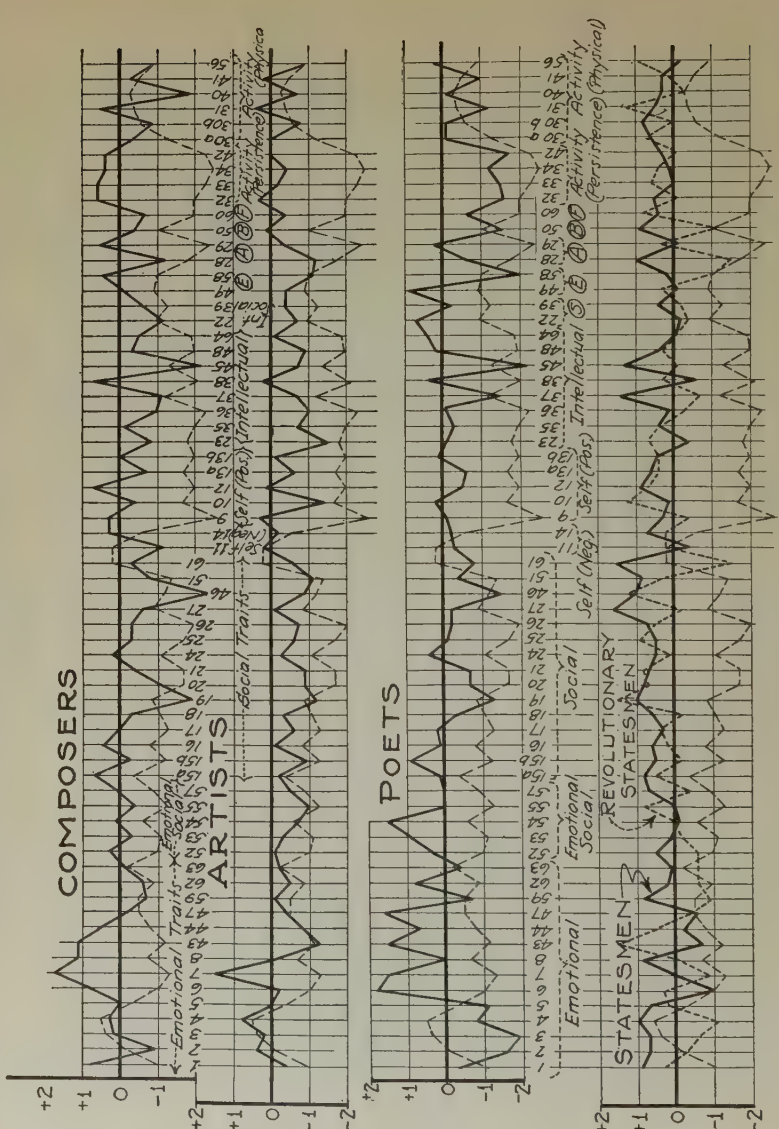


FIGURE 9—*Continued*

FIGURE 10

TRAIT PROFILES OF SUBGROUPS OF YOUNG GENIUSES, GROUPED BY FIELD OF LATER ACHIEVEMENT
COMPARISON WITH THE PROFILE OF GROUP C (EMINENT MEN)



NOTE: The scores have been transposed from measures of deviation from the common average of unselected youths to measures of deviation from the average of group C (Eminent Men). The group C (Eminent Men) profile is the 0 base line in Figure 10.

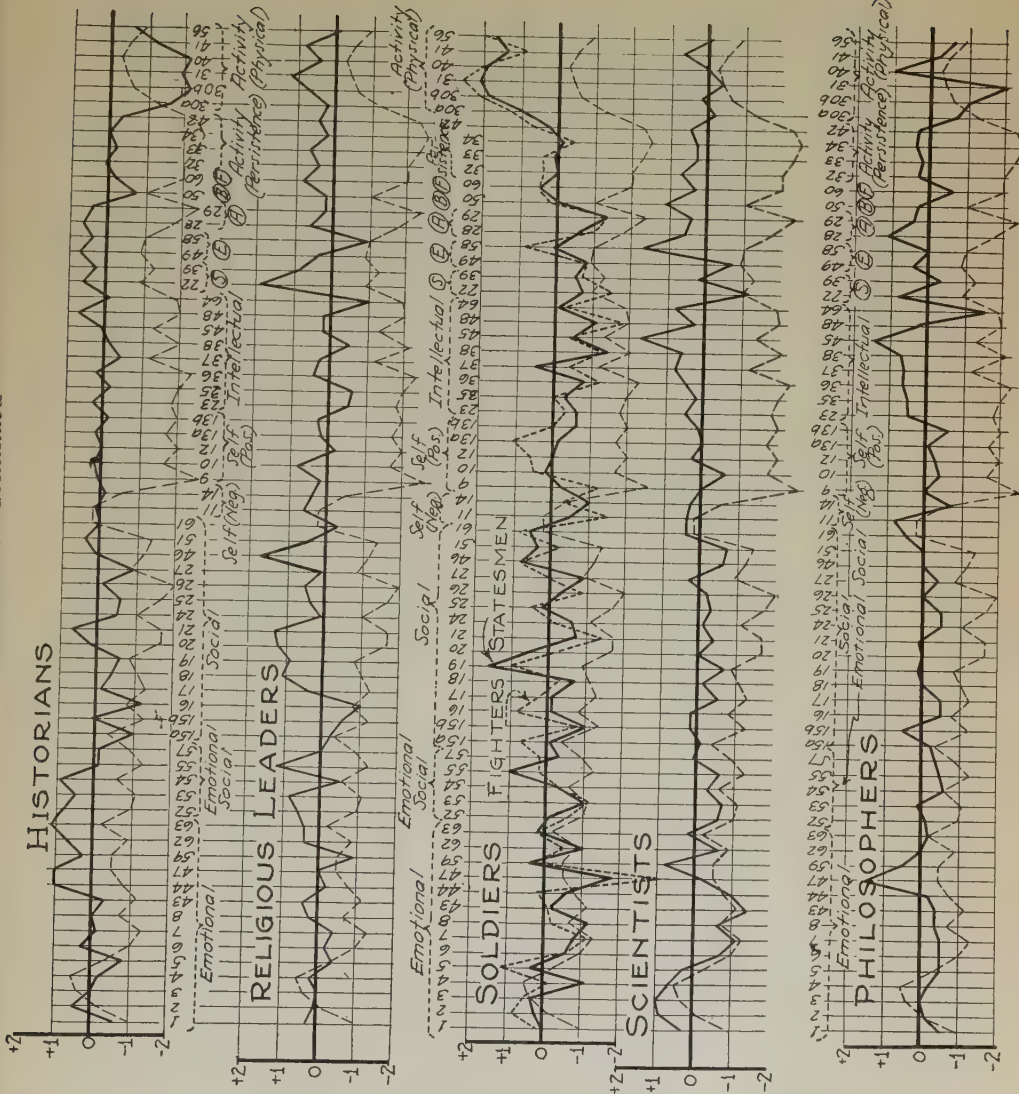


FIGURE 10—*Continued*

TABLE 45A

FREQUENCY DISTRIBUTION OF AI IQ'S BY FIELD OR PROFESSION IN WHICH EMINENCE WAS (PRIMARILY) ACHIEVED

	Field or Profession																					
	Statesmen		Writers (PND)		Writers (EHCS)		Scientists		Soldiers		Philosophers		Relig. Leaders		Artists		Musicians		Revol. Statesmen		Total freqs.	
AI IQ	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent
100			1						2												3	
105	1		1		2		3		2						1						10	
110	1	9.3	1	9.6		4.7	1	10.3	9	63.0			2	21.7	4	38.5	2	18.2			20	15.6
115	2		2						4				3								11	
120	10		3		3		3		3				2		1		2				27	
125	4		2		6		6		6		2		1		3		1		1		32	
130	3	48.8	6	38.5	4	46.5	2	38.5		37.0	2	31.8	1	47.8	1	46.1		54.5	2	55.6	21	42.9
135	4		9		7		4		1		3		7		1		3		2		41	
140	4		6		4		9				2		2		1						28	
145	5		4		6		5				3		3		1		1		2		30	
150	2	27.9	7	36.5	5	39.5	3	46.2			5	54.5		21.7		15.4	2	27.3	1	33.3	25	32.3
155	1		2		2		1				2										8	
160	2		4										2								8	
165	3				2														1		6	
170		11.6	2	13.5		4.7		2.6				4.5		8.7						11.1	2	6.7
175			1				1				1										3	
180					2		1														3	
185	1		1								1										3	
190		2.3		1.9		4.7		2.6			1	9.1									1	2.5
195																					0	
200																					0	
Total freqs.	43		52		43		39		27		22		23		13		11		9		282	
Ave. IQ	135.2		139.8		137.3		135.4		115.0		147.3		132.2		122.3		130.5		140.0		134.8	

TABLE 45B

FREQUENCY DISTRIBUTION OF AII IQ'S BY FIELD OR PROFESSION IN WHICH EMINENCE WAS (PRIMARILY) ACHIEVED

	Field or Profession																					
	Statesmen		Writers (PND)		Writers (EHCS)		Scientists		Soldiers		Philosophers		Relig. Leaders		Artists		Musicians		Revol. Statesmen		Total freqs.	
AII IQ	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent
100																						
105									1													
110	2	4.7	1	3.8				2.6	1	18.5						15.4		9.1			1	
115			1				1		3						2		1				4	4.6
120	4				1				7				1		1		1				8	
125	1		2		2		1		6						1						15	
130	6	37.2	4	17.3	1	20.9	3	12.8	3	74.1		18.2	2	21.7		38.5	1	18.2	2	33.3	13	
135	5		3		5		1		4		4		2		3				1		22	27.7
140	8		6		8		4		1				7		3		3				28	
145	3		8		7		3		1		4		3				1		4		40	
150	5	39.5	7	53.8	2	58.1	8	43.6		7.4		31.8	4	60.9	2	38.5	1	72.7	1	55.6	34	
155	1		7		8		2				3						3				30	45.4
160	2		3		2		5				4		3		1						24	
165	2		1		4		5				2										20	
170	2	13.9	6	21.2	1	20.9	3	35.9			2	40.9		13.0		7.7				11.1	14	
175			1		2		1				1								1		14	19.1
180	1		1				2				1		1								6	
185																					6	
190	1	4.7		3.8				5.1			1	9.1		4.4							0	
195																					2	3.2
200			1																		0	
																					1	
Total freqs.	43		52		43		39		27		22		23		13		11		9		282	
Ave. IQ	141.9		149.5		147.7		152.3		124.6		156.4		144.6		135.4		140.5		144.4		149.9	

beginning with the Artists, who average +.8, and ending with the Statesmen, who average +1.6. The discussion of the individual subgroups is followed by a brief analysis of their most conspicuous similarities and differences.

I. *Artists.* The 13 Artists in Group A have an average AI

TABLE 46

CLASSIFICATION AND DESCRIPTION OF GROUPS FOR

	Artists	Poets	Musicians	Historians	Soldiers (Statesmen)
Rel. coeff. of trait profile	.801	.769	.668	.737	.690
		(Maximum P. E. .046 Minimum .025)			
AI IQ	120	150	130	150	120
Rel. coeff. of data	.06	.75	.53	.68	.53
AII IQ	135	160	145	155	130
Rel. coeff. of data	.20	.75	.60	.75	.53
Individuals included	Canova Hogarth Michelangelo Murillo Raphael Reynolds	Burns Byron Chatterton Coleridge Hugo Lamartine Milton Schiller Tennyson Wordsworth	Haydn Mozart Rossini Wagner Weber	Gibbon Guizot Macaulay Niebuhr Prescott Carlyle	Cromwell Garibaldi Jackson Napoleon Washington

IQ of 122 (rel. coeff. of data, .23)[1] and an average AII IQ of 135 (rel. coeff. of data, .32). The corrected estimate indicates that the true mean IQ of this group may be near 160. A composite trait profile (rel. coeff. of trait ratings, .80) of

[1] Here as in previous chapters, reliability of data refers to adequacy for the present purpose of the records on which the IQ ratings were based, not to the consistency of the raters nor to the agreement between raters.

six Artists[1] presents the characteristics of this subgroup in childhood and youth. Table 46 gives descriptive data for the members of the subgroup. (1) The average of the Artists for 67 good traits is +.8, which is definitely above the common average, but below the averages for the geniuses as a

TABLE 46—*Continued*

WHICH TRAIT PROFILES HAVE BEEN CALCULATED

Soldiers (Fighters)	Scientists	Philosophers	Revolutionary Statesmen	Religious Leaders	Statesmen
.798	.706	.807	.742	.734	.774
		(Maximum P. E. .046 Minimum .025)			
115	140	155	146	135	140
.43	.53	.60	.53	.53	.60
130	162	160	150	150	150
.60	.75	.75	.75	.60	.75
Grant	Agassiz	Bacon	Cavour	Chalmers	Brougham
Marmont	Arago	Comte	Danton	Calvin	Burke
Murat	Cuvier	Cousin	Mazzini	Channing	Canning
Ney	Darwin	Descartes	Mirabeau	Luther	Cobden
Nelson	Davy	Fichte	Robespierre	Wesley	Fox, C. J.
	Gay-Lussac	Hegel			Jefferson
	Laplace	Kant			Lincoln
	Liebig	Leibnitz			Peel
	Newton	Locke			Pitt (the younger)
		Mill			Webster
		Schelling			
		Schleiermacher			

whole (Eminent Men). (2) For the 13 trait groups (Table 48A) the Artists score lower than the Eminent Men with the

[1] The reliability coefficient of the trait ratings is the coefficient of correlation (Pearson product moment) between the series of estimates of two raters (C and Mk). It is a measure of the agreement of their trait profiles for each individual. The group average of the estimates on each trait was obtained for each rater, and the two series of average ratings, i.e., the group profiles, were correlated.

TABLE 47

DISTRIBUTION OF AI AND AII IQ RATINGS BY FIELD AND BY THE

AI IQ Rel. coeff. of data	Artists		Writers (PND)		Musicians		Writers (EHCS)		Soldiers	
	IQ	Freq.	IQ	Freq.	IQ	Freq.	IQ	Freq.	IQ	Freq.
.00	–		105	(1)	100	(1)	–		108	(3)
.11	108	(3)	135	(1)	–		113	(2)	108	(7)
.20	122	(7)	126	(7)	110	(1)	121	(7)	118	(6)
.43	137	(3)	123	(5)	125	(4)	131	(8)	118	(7)
.00 to .43	122	(13)	124	(14)	120	(6)	125	(17)	113	(23)
.53	–		139	(6)	140	(2)	137	(5)	–	
.60	–		139	(10)	143	(2)	145	(12)	124	(4)
.75	–		148	(17)	150	(1)	152	(7)	–	
.82	–		169	(5)	–		180	(2)	–	
.53 to .82	–		147	(38)	143	(5)	148	(26)	124	(4)
Total	122	(13)	141	(52)	130	(11)	139	(43)	115	(27)
Ave. rel. coeff. of data	.23		.57		.45		.51		.27	
						Ave. AI IQ				134.9
AII IQ										
.00 to .43	135	(13)	133	(10)	129	(4)	136	(10)	122	(22)
.53 to .82	–	–	153	(42)	147	(7)	151	(33)	136	(5)
Total	135	(13)	149	(52)	140	(11)	148	(43)	125	(27)
Ave. rel. coeff. of data	.32		.64		.50		.59		.33	
						Ave. AII IQ				144.7

TABLE 47—*Continued*

RELIABILITY OF THE DATA UPON WHICH THE IQ RATING IS BASED

Scientists		Philosophers		Revolutionary Statesmen		Religious Leaders		Statesmen		Total Group A		AI IQ
IQ	Freq.	IQ	Freq.	IQ	Freq.	IQ	Freq.	IQ	Freq.	IQ	Freq.	Rel. coeff. of data
–		–		–		–		113	(3)	109	(8)	.00
114	(4)	–		–		124	(4)	115	(1)	114	(22)	.11
125	(6)	130	(3)	130	(2)	115	(2)	121	(10)	122	(51)	.20
133	(10)	135	(5)	132	(3)	127	(8)	134	(8)	129	(61)	.43
127	(20)	133	(8)	131	(5)	124	(14)	124	(22)	123	(142)	.00 to .43
138	(9)	149	(4)	–		145	(1)	130	(5)	139	(32)	.53
143	(3)	148	(5)	155	(2)	142	(7)	144	(9)	142	(54)	.60
150	(6)	158	(3)	148	(2)	160	(1)	163	(4)	152	(41)	.75
175	(1)	183	(2)	–		–		160	(3)	171	(13)	.82
145	(19)	155	(14)	151	(4)	144	(9)	147	(21)	147	(40)	.53 to .82
135	(39)	147	(22)	140	(9)	132	(23)	135	(43)	135	(282)	Total
.46		.53		.49		.42		.47		.46		Ave. rel. coeff. of data

Ave. rel. coeff. of data .46

												AII IQ
130	(6)	143	(8)	135	(4)	138	(8)	129	(19)	131	(105)	.00 to .43
156	(33)	164	(14)	152	(5)	148	(15)	152	(24)	153	(177)	.53 to .82
152	(39)	156	(22)	144	(9)	145	(23)	142	(43)	145	(282)	Total
.59		.59		.50		.50		.50		.535		Ave. rel. coeff. of data

Ave. rel. coeff. of data .53

TABLE 48 A

GROUPED TRAIT RATINGS OF 12

Trait groups	Number of traits in group	Eminent Men Group C	Artists	Writers (PND)	Musicians	Writers (EHCS)
Activity (Persistence)	(5)	2.2	2.1	.9	2.5	2.1
Intellectual Activity	(2)	2.0	1.25	1.85	1.7	2.55
Self (Positive Traits)	(5)	2.0	1.7	1.8	2.0	2.1
Strength or Force of Character	(1)	2.0	1.6	1.4	1.3	1.8
Intellectual	(8)	1.8	1.15	1.4	1.25	1.9
Social	(15)	1.2	.7	.9	.7	.9
Intellectual-social	(2)	1.1	.6	1.4	.3	1.6
Balance	(1)	1.0	1.1	–.6	.6	.3
Emotional-social	(5)	1.0	.5	1.5	.9	1.4
Intellectual-emotional	(2)	.9	1.3	.4	1.15	1.5
Physical Activity	(6)	.75	.35	.3	0.0	–.9
Emotional	(14)	.5	.4	.7	.8	.75
Self (Negative Traits)	(2)	.1	.15	–.1	–.25	.15
Ave. rating (all traits)	(67)	1.2	.8	.9	1.0	1.1

TABLE 48 B

GROUPED TRAIT RATINGS OF 12

Trait groups	Number of traits in group	Eminent Men Group C	Artists	Writers (PND)	Musicians	Writers (EHCS)
Strength or Force of Character	(1)	2.0	1.6	1.4	1.3	1.8
Intellectual	(14)	1.6	1.1	1.3	1.1	1.9
Self (Positive and Negative)	(7)	1.5	1.2	1.3	1.3	1.5
Activity	(12)	1.5	1.1	.7	1.2	.7
Social	(22)	1.1	1.5	1.1	.7	1.1
Balance	(1)	1.0	1.1	–.6	.6	.3
Emotional	(21)	.7	.5	.9	.9	1.0
(Persistence of Motive)	(5)	(1.7)	(1.1)	(.9)	(1.7)	(1.9)
Ave. rating (all traits)	(67)	1.2	.8	.9	1.0	1.1

TABLE 48 A—*Continued*

GROUPS OF YOUNG GENIUSES

Soldiers (Statesmen)	Soldiers (Fighters)	Scientists	Philos-ophers	Revolu-tionary Statesmen	Religious Leaders	Statesmen	Eminent Men Group C
2.4	2.5	2.6	2.3	2.5	2.7	2.5	2.2
1.1	.9	2.55	2.8	1.45	2.45	2.5	2.0
1.9	2.4	2.0	1.7	2.5	2.3	2.5	2.0
2.5	2.5	2.3	1.4	2.8	2.8	2.4	2.0
1.3	1.2	2.5	2.3	1.9	1.6	2.1	1.8
1.1	1.2	1.0	1.1	1.5	1.6	1.9	1.2
.55	.5	.7	1.4	.85	2.5	1.25	1.1
1.0	1.2	2.1	1.3	–.1	1.2	1.9	1.0
.8	.7	.6	.7	.9	1.4	1.2	1.0
.6	1.0	1.45	1.15	.55	.7	1.0	.9
2.35	2.5	.7	.1	1.1	1.4	1.0	.75
.1	.3	.4	.5	.35	.5	.8	.5
–.6	–.7	.5	.2	.35	.65	.3	.1
1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.2

TABLE 48 B—*Continued*

GROUPS OF YOUNG GENIUSES

Soldiers (Statesmen)	Soldiers (Fighters)	Scientists	Philos-ophers	Revolu-tionary Statesmen	Religious Leaders	Statesmen	Eminent Men Group C
2.5	2.5	2.3	1.4	2.8	2.8	2.4	2.0
1.1	.9	2.1	2.1	1.5	1.7	1.8	1.6
1.2	1.5	1.5	1.3	1.9	1.8	1.9	1.5
2.1	2.2	1.7	1.4	1.6	1.9	1.8	1.5
1.0	1.0	.9	1.0	1.3	1.6	1.7	1.1
1.0	1.2	2.1	1.3	–.1	1.2	1.9	1.0
.3	.5	.6	.6	.5	.8	.9	.7
(1.7)	(1.5)	(1.9)	(2.0)	(2.3)	(2.7)	(2.3)	(1.7)
1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.2

(probably nonsignificant) exception of the ratings on *balance* and *intellectual-emotional* traits. The only differences of possible significance in the order of magnitude of the ratings when compared with those of Group C as a whole are in *intellectual activity* (relatively lower among the Artists than among the Eminent Men) and in *balance* relatively higher. (3) The traits in which the Artists score above +2.5 are (7) *degree of esthetic feeling* and (9) *desire to excel.* On both of these they exceed the rating for Eminent Men. On the 22 "characteristics of eminence" the ratings of the Artists are below those of the Eminent Men in 17 instances, equal to them in one, (42) *degree of perseverance,* and above them in four, (9) *desire to excel,* (12) *belief in their own powers,* (32) *degree to which they work with distant objects in view,* and (38) *originality of ideas.* In *intellectual* traits the Artists are rated at + 1.1. While this is significantly lower than the rating for Eminent Men it is even more significantly above the common average. In *persistence of motive* the Artists rate at + 1.3.

The profile indicates that youths who achieve eminence as Artists are characterized by three differentiable personality trends: first, (7) *degree of esthetic feeling* and (9) *desire to excel;* in these traits their ratings are high compared with any group; second, our "characteristics of eminence," (9) *desire to excel,* (12) *belief in their own powers, degree to which they work with distant objects in view,* and (32) *originality of ideas;* in these they exceed the Eminent Men; third, two general personality factors (a) *intelligence* (trait rating + 1.3, AI IQ 122, AII IQ 135); and (b) *persistence of motive* (+ 1.1); while they do not with respect to these factors reach the average rating for Eminent Men, they show definite superiority over the common average of the unselected. The IQ ratings are probably too low (rel. coeffs. of data, .23 and .32). More adequate standards for estimating the intelligence factor in artistic performance would probably give higher ratings of these particular individuals. Inadequate data give consistently low trait ratings just as they give low IQ estimates. If insufficiency of data influences the ratings on the present group, the comparatively low ratings on all the traits are less significant than they appear, and the comparatively high ratings on the characteristic traits are all the more significant.

II. *Writers (Poets, Novelists, Dramatists).* The 52 cases included in this group rate in AI IQ 141 (rel. coeff. of data, .57), AII IQ 149 (rel. coeff. of data, .64). The corrected estimate indicates that the true mean IQ of this group is above 165. A composite trait profile (rel. coeff. of trait ratings, .77) of ten of the greater geniuses among those who achieved eminence as imaginative writers (subgroup AI IQ 150, rel. coeff. of data, .75; AII IQ 160, rel. coeff. of data, .75) draws attention to some of their youthful characteristics. (1) The group rates above the common average (+.9) on the average of 67 good traits. (2) Its members rate relatively lower in *persistence* and *balance* (Table 48), and relatively higher in all of the *social* traits and perhaps in the *emotional,* than the average Eminent Men. (3) (a) They are characterized by a degree of *imaginativeness, esthetic feeling,* and an *amount of work spent on pleasures* which is high compared with any group. (b) In six of the 22 "characteristics of eminence" they exceed the Eminent Men, viz.: in (10) *desire to be leaders,* (13b) *rating their special talents correctly,* (38) *originality of ideas,* (48) *strength of memory,* (64) *keenness of observation,* and (29) *extent of mental work bestowed upon pleasures.* (c) They fall below the Eminent Men in the *intellectual* traits, in spite of five very high ratings, because of scores below the common average in (37) *soundness of common sense* and (45) *degree to which action and thought are dependent on reason.* (d) They rate (+.9) above the common average but below the Eminent Men (+1.7) in *persistence.*

In the case of the *imaginative writers* the grouping of trait averages is in part misleading, for this procedure tends to obscure the most striking characteristics of the group, its tendency to extremes in both directions. For example, in the *emotional* traits the group averages + 1.7 on nine traits and + 1.1 on five others. No other group shows such extreme deviations, although the trend of the Musicians is similar. Only a detailed study of all of the ratings, and a thorough analysis of all of the deviations, could do justice to the personality profile of this group. Such a minute study is not attempted here.

III. *Musicians.* The five Musicians whose composite trait profile (rel. coeff. of trait ratings, .67) is given are fairly

representative in "brightness" of the 11 musical geniuses included in Group A. The IQ estimates of the latter are AI 130 (rel. coeff. of data, .45); AII 140 (rel. coeff. of data, .50). The corrected estimate indicates that the true mean IQ for the group is not below 160. Their trait profile (Table 48) characterizes the Musicians convincingly. (1) In 67 good traits their average (+ 1.0) is above the generality, but below the average of the Eminent Men. (2) They rate relatively, and perhaps significantly, lower on *intellectual activity,* the *intellectual-social* traits, and *physical activity,* and relatively higher on the *intellectual-emotional* traits, than do the Eminent Men. (3) (a) They have (7) *a degree of esthetic feeling,* the (9) *desire to excel,* (12) *belief in their own powers,* (38) *originality of ideas,* (29) *extent of mental work bestowed upon pleasures,* (32) *working toward a distant goal,* (33) *persistence in the face of obstacles,* and (42) *quiet determination* that are conspicuous compared with Group C. (b) In eight of the 22 "characteristics of eminence" they are above the average of Eminent Men (these are the last eight traits enumerated above), and they equal the average of Eminent Men on still one other of the 22, (13a) *tendency to rate their own abilities correctly.* (c) Their *intellectual* average is slightly below that of the Eminent Men. (This corroborates the evidence in the IQ rating.) (d) In the *persistence* traits the Musicians average + 1.7, which is equal to the rating of Eminent Men on the same trait group.

The deviations of the Musicians' individual traits from the profile of geniuses as a whole show interesting tendencies which invite exhaustive study. The grouped traits indicate certain distinct trends in the youths who achieve eminence in the realm of music and sufficiently differentiate them from young geniuses in other realms.

IV. *Writers (Essayists, Historians, Critics, Scholars).* The Writers of Group C whose trait profile has been calculated average in IQ a rating above the level of the larger number in Group A which they represent.[1] This is to be expected, since the records of the young Writers (EHCS) offer distinctly more reliable material for rating than do those of Group A as a whole. (See Tables 46 and 47.) The

[1] The Writers comprising the subgroup are all Historians.

corrected IQ estimate for the group indicates that their true mean IQ is above 165 and perhaps slightly higher than the mean IQ of the entire group of 282 young geniuses.

Certain characteristics appear in an examination of the trait profile. (1) The general average of all traits is + 1.1 above the common average. (2) In all of the grouped *intellectual* traits and in the *social* traits the Writers stand relatively higher than do the Eminent Men. (3) (a) They have conspicuously high ratings in three traits only: (9) *desire to excel,* (48) *strength of memory,* and (29) *extent of mental work bestowed upon pleasures.* (b) They rate above the average for Eminent Men in 11 traits, viz.: (20) *trustworthiness,* (21) *conscientiousness,* (9) *desire to excel,* (10) *desire to be leaders,* (13a) *tendency to rate their own abilities correctly,* (23) *absence of acquiescence,* (36) *profoundness of apprehension,* (48) *strength of memory,* (28) *extent of mental work bestowed upon usual studies* and (29) *upon pleasures,* and (32) *working toward a distant goal.* (c) The *intellectual* rating confirms the IQ estimate—it is higher than the average for Group C as a whole; the *persistence* rating reaches +1.9, which is again above the Group C average. (d) In certain *emotional* traits and in *activity* the subgroup is low, lower than the common average. The Historians representing here the Writers (EHCS) are fairly well characterized by the grouped traits of the trait profile.

V. *Soldiers (Statesmen).* The five members of the subgroup, whose composite profile represents the Soldier-Statesman type, rate near the same IQ level as the larger group of 27 members of Group A which they represent. (See Tables 46 and 47.) The true IQ of this group is estimated above 140, but this may be too low because the items rated are not as yet adequately standardized. (1) The subgroup rates above the common average in its mean (+ 1.1) for 67 good traits. (2) Ratings on the *self* traits and, to a greater extent, on the *activity* traits and on *strength or force of character* are out of proportion here as compared with the trait averages for the group of geniuses as a whole. The ratings on *intellectual* traits are disproportionately low. (3) (a) The members of the group are characterized by conspicuously high ratings in (42) *quiet determination,* (30b) *degree of bodily activity in pursuit of pleasure,* (31) *hyper-*

kinesis, and (56) *physical bravery.* (b) The ratings are above those of the eminent men in six of the "characteristics of eminence," (20) *trustworthiness,* (25) *wideness of influence,* (10) *desire to be leaders,* (60) *strength or force of character,* (33) *perseverance in the face of obstacles,* and (42) *quiet determination.* (c) The ratings on the *intellectual* traits are lower than those of Group C as a whole, thus confirming the IQ rating. The *persistence of motive* traits equal the Eminent Men's rating (+1.7). Two conspicuous negative deviations should be noted, viz.: (4) *absence of liability to anger* and (47) *degree of introversion.* These deviations indicate a temper hot beyond the common average and a more than usual tendency to live in an external world of action.

The profile presents a suggestive outline of the personality in youth of those who achieve eminence as Soldier-Statesmen.

VI. *Soldiers (Fighters).* The five Fighting Soldiers whose profile (rel. coeff. of trait ratings, .80) has been computed, nearly represent in estimated IQ the 27 Soldiers of Group A; but the reliability coefficients of the data on which their IQ's are rated are higher, indicating that the estimated IQ of the five Fighting Soldiers is nearer their true IQ than is that of the average Soldier of Group A. The true IQ mean of the Soldiers is probably considerably above the true mean for this part of the group (the Fighting Soldier). (1) The general average of all traits (+ 1.2) is above the common average and equal to the average for Eminent Men. (2) The group rates relatively high on the *activity* traits and on *balance,* while a disproportionately low rating—below that of every other group—in the *intellectual* traits is outstanding. (3) (a) The Fighting Soldiers are conspicuous in eight traits, viz.: (9) *desire to excel,* (12) *belief in their own powers,* (13) *tendency to rate their own abilities correctly,* (33) *persistence in the face of obstacles,* (42) *quiet determination,* (30b) *degree of bodily activity in pursuit of pleasures,* (31) *hyperkinesis,* and (56) *physical bravery.* (b) In nine of the "characteristics of eminence" the group exceeds the Eminent Men; these include three traits already enumerated: (9) *desire to excel,* (12) *belief in their own powers,* (13a) *tendency to rate their own abilities correctly;*

and six others: (25) *wideness of influence,* (10) *desire to impose their own will,* (60) *forcefulness,* (32) *working with distant objects in view,* (33) *tendency not to abandon tasks in the face of obstacles,* and (42) *perseverance.* (c) In *intellectual* traits the rating corroborates the low—and fairly reliable—IQ estimates. In *persistence* the Fighting Soldiers rate at + 1.5, which is below the score of the Eminent Men in this trait. (d) A conspicuous negative deviation indicates that the youthful Fighting Soldier is unusually hot-tempered and that he enjoys the limelight and applause. The high reliability of the profile and of the data for the IQ indicate that the outlined characteristics somewhat adequately typify the youths who achieve eminence as Fighters.

VII. *Scientists.* The nine representatives of the scientific group whose profile (rel. coeff. of trait ratings, .71) typifies the larger group are as much above the latter in IQ estimates as the greater reliability of the data warrant. The corrected score indicates that the true mean IQ for this group is probably above 170. (1) The Scientists average + 1.2 above the common average on 67 good traits, i.e., they equal the general average of the Eminent Men. (2) *In strength or force of character,* in *intellectual* traits, in *activity* and *balance* they rate disproportionately high, in the *social* and *self* traits disproportionately low, as compared to Eminent Men. (3) (a) The young Scientists are conspicuous for high ratings on 11 traits, viz.: (9) *desire to excel,* (36) *profoundness of apprehension,* (38) *originality,* (45) the *degree to which action and thought are dependent on reason,* (64) *keenness of observation,* (58) *neatness, accuracy, attention to detail,* (29) *extent of mental work bestowed upon pleasures,* (32) *working with distant objects in view,* (33) *perseverance in the face of obstacles,* (34) *tendency not to be changeable,* (42) *quiet determination.* (b) They are above the average of the Eminent Men in 16 of the 22 "characteristics of eminence," viz.: already enumerated, (9) *desire to excel,* (36) *profoundness of apprehension,* (38) *originality,* (64) *keenness of observation,* (29) *extent of mental work bestowed upon pleasures,* (32) *working with distant objects in view,* (33) *perseverance,* (34) *tendency not to be changeable,* (42) *quiet determination;* and, further: (12) *belief in their own powers,* (13b) *rating their special talents cor-*

rectly, (23) *nonacquiescence,* (35) *quickness of apprehension,* (48) *strength of memory,* (28) *extent of work bestowed upon usual studies,* and (60) *strength or force of character.* (c) The high rating of this subgroup on *intellectual* traits is above the average for Eminent Men; it is equalled by the rating of the Philosophers on these traits and by the rating of no other group. In *persistence of motive* the young Scientists rate at + 1.9, which is distinctly above the average for Eminent Men. (d) The Scientists are as low or lower than the common average in *excitability* and in *sensitiveness to criticism.* They are slightly below it in *interest in religious beliefs.* The trait profile offers no evident inconsistencies or contradictions. It presents a picture of a group of youths who are among the *strongest* and most *forceful* and who are the best *balanced* in the study.

VIII. *Philosophers.* The 12 Philosophers whose youthful traits are presented in composite profile (rel. coeff. of trait ratings, .81) rate distinctly higher in childhood IQ (upon more reliable data) than do as a whole the members of the group of 22 to which they belong. The corrected score indicates that the true mean IQ for this group is not less than 175. (1) The youths who achieve great eminence in philosophy equal the Eminent Men in their rating of + 1.2 on 67 good traits. (2) Ratings on their *intellectual* traits are high and out of proportion to their other traits when compared with the rank order of traits of Eminent Men. In *social* and *activity* traits the group is below the Eminent Men average. In *strength or force of character* they are distinctly below the Group C rating—being as low in this respect as the Poets and only exceeded in the same direction by the Musicians. (3) (a) The philosophical youths are conspicuous for eight traits, viz.: (9) *desire to excel,* (36) *profoundness of apprehension,* (38) *originality of ideas,* (45) *degree to which action and thought are dependent on reason,* (28) *extent of mental work bestowed upon usual studies* and also (29) *upon pleasures,* (34) *tendency not to be changeable,* and (42) *degree of quiet determination.* (b) They excel the Eminent Men in six "characteristics of eminence" already enumerated, viz.: (36) *profoundness of apprehension,* (38) *originality of ideas,* (28) *extent of mental work bestowed upon usual studies,* (29) *upon pleasures,* (34) *tendency not to be change-*

able, (42) *quiet determination;* and in six others: (21) *conscientiousness,* (23) *nonacquiescence,* (35) *quickness of apprehension,* (48) *strength of memory,* (32) *working with distant objects in view,* and (33) *perseverance in the face of obstacles.* (c) In *intellectual* traits the youthful Philosophers equal the rating of the Scientists and excel the other ten subgroups. In the *intellectual-activity* traits, also, the Philosophers top the list. In *persistence of motive* they average a rating of + 2.0; in this respect they stand above the Eminent Men and are exceeded by three subgroups only: the Statesmen, the Revolutionary Statesmen, and the Religious Leaders. (d) A striking negative deviation indicates that the youths who become Philosophers are distinctly more prone than the common average to *think rather than to act;* i.e., they are *hypokinetic* and introverted. The Historians almost reach this negative rating; the Poets approach it. All other groups tend toward *hyperkinesis.* The trait profile of the Philosophers brings out distinct trends in this group which differentiate its members from the youth of later eminence in other fields.

IX. *Revolutionary Statesmen.* Five individuals represent the small group of youths who achieved eminence through opposition. The five rate in *intelligence* somewhat above the level of the nine they represent and on somewhat more reliable data. The corrected score indicates that the true mean IQ for this group is not below 165. The group profile (rel. coeff. of data, .73) indicates the nature of these youthful iconoclasts. (1) In 67 good traits the young Revolutionaries rate above the level of Eminent Men, and below the average of Statesmen. (2) Their *activity* traits are slightly out of proportion to their other traits as compared with the rank order of the traits of Eminent Men. In *intellectual-social* and *emotional-social* traits, as well as in *strength or force of character* this subgroup rates relatively high. (3) (a) The youthful Revolutionaries are conspicuous for eight traits: (43) *degree of excitability,* (25) *wideness of influence,* (10) *desire to be leaders,* (12) *belief in their own powers,* (29) *extent of mental work bestowed upon special interests,* (60) *strength or force of character,* (33) *perseverance in the face of obstacles,* and (34) *absence of changeability.* In the three last-named traits the group ap-

proximates the highest rating possible. It may be noted that (33) *perseverance in the face of obstacles* receives a significantly higher rating in the case of this subgroup than does simple *perseverance.* The Historians, the Religious Leaders, the Poets, and the Musicians also exhibit this anomaly, but to a much less extent. (b) In the 22 "characteristics of eminence" the young Revolutionaries exceed the Eminent Men in 16 traits including seven traits already enumerated: (25) *wideness of influence,* (10) *desire to be leaders,* (12) *belief in their own powers,* (29) *extent of mental work bestowed upon pleasures,* (60) *forcefulness, strength of character,* (33) *perseverance in the face of obstacles,* and (34) *absence of changeability,* and nine others: (20) *trustworthiness,* (21) *conscientiousness,* (26) *intensity of influence upon special intimates,* (13a) *tendency to rate their abilities* and (13b) *their special talents correctly,* (23) *nonacquiescence,* (35) *quickness of apprehension,* (38) *originality,* and (48) *strength of memory.* (c) In *intellectual* traits the future Revolutionary Statesmen rate just below the average of Eminent Men. This nearly corresponds to the IQ estimate, which is, however, possibly a shade higher in proportion, owing to the fact that in it is weighted less heavily than in the trait group a relative deficiency in three traits: (37) *soundness of common sense,* (28) *the extent of mental work bestowed on usual studies,* and (58) *neatness, accuracy, attention to detail.* In *persistence of motive* this group rates at + 2.3 which is significantly higher than the corresponding rating for the Eminent Men. (d) The young Revolutionaries are just below the common average—not significantly so—in *balance,* which is a conspicuous deviation from the Eminent Men and exceeded in the negative direction by only one group—the Poets. Striking negative deviations indicate *hot temper, liability to extreme depression,* and *lack of conventionality.* The rating on *balance,* which is just less than the common average and distinctly less than that for Eminent Men, gives a clue to the interpretation of the character of youths who achieve eminence as Revolutionary Statesmen. As in the case of the Poets, this group, also, shows strange contradictions, indications of definite "complexes," which can be interpreted only by a careful study of each trait rating in the profile.

X. *Religious Leaders.* The five future Religious Leaders, of Group C, whose profile has a reliability of .73, rate proportionally as much higher than the 23 Religious Leaders of Group A as the greater reliability of their data warrants. The corrected IQ score indicates that the true mean intelligence rating for this subgroup is not below 165. (1) The youths who become eminent as Religious Leaders average +1.4 on 67 good traits, or +.2 above the Eminent Men. (2) Compared with the Eminent Men they rate disproportionately high on *strength or force of character,* the *social* traits, *physical activity,* the negative *self* traits, and *balance.* (3) (a) The youths who are to become Religious Leaders are conspicuous for 11 traits: (20) *trustworthiness,* (21) *conscientiousness,* (46) *sense of corporate responsibility,* (9) *desire to excel,* (36) *profoundness of apprehension,* (22) *interest in religious beliefs and ceremonies,* (29) *extent of mental work bestowed upon special interests,* (60) *strength or force of character,* and (33) *perseverance in the face of obstacles,* (34) *absence of changeability,* and (42) *degree of strength of will or perseverance.* (b) They exceed the Eminent Men in 16 of the "characteristics of eminence" including nine traits already enumerated: (20) *trustworthiness,* (21) *conscientiousness,* (9) *desire to excel,* (36) *profoundness of apprehension,* (29) *extent of mental work bestowed upon special interests,* (60) *strength or force of character,* (33) *perseverance in the face of obstacles,* (34) *absence of changeability,* and (42) *degree of strength of will or perseverance;* and in seven others: (25) *wideness of influence,* (26) *intensity of influence,* (10) *desire to be leaders,* (13a) *tendency to rate their own abilities* and (13b) *their own special talents correctly,* (48) *strength of memory,* and (28) *extent of mental work bestowed upon usual studies.* (c) In *intellectual* traits the youths who achieve eminence as Religious Leaders rate just above the average of the Eminent Men—possibly a nonsignificantly higher estimate. In *persistence of motive* the group rates at + 2.7. Compared with all the other subgroup ratings on this trait—and all are high—this rating is remarkable. It gives evidence of a conspicuous degree of Webb's second general factor. (d) The youthful behavior of Religious Leaders shows on the negative side of the common average a slight tendency to *effusiveness* and to *unconventionality.* Topping the list

(along with the Revolutionary Statesmen) on *strength or force of character,* and showing an unusually high rating on *persistence* traits, the members of this group indicate their superiority to the general average of Eminent Men on every trait group, *emotional, social, activity, self,* and *intellectual.*

XI. *Statesmen.* Ten youthful Statesmen present a trait profile (rel. coeff. of data, .77) that indicates the characteristics of the group of 43 members of Group A to which they belong. The IQ estimate of the ten exceeds that of the 43 as much as the reliability of the data allows. The corrected score indicates that the true mean IQ of this group is above 160. (1) The average of Statesmen on all good qualities (+ 1.6) is distinctly above the corresponding average of young geniuses as a whole; it is the highest subgroup average obtained. (2) The grouped traits (Table 48) show almost the same rank order of magnitude as those of the Eminent Men; the exceptions are relatively higher ratings on the *self* traits and on *balance.* In the latter trait the Statesmen rate only lower than the Scientists and above all other groups. (3) (a) The profile indicates a conspicuous degree of eight traits: (26) *intensity of influence,* (9) *desire to excel,* (12) *belief in their own powers,* (37) *soundness of common sense,* (45) *degree to which action and thought are dependent on reason,* (28) *mental work bestowed on usual studies,* (34) *tendency not to be changeable,* and (42) *quiet perseverance.* (b) In 17 of the "characteristics of eminence" the young Statesmen exceed the average of the Eminent Men. Of these six were enumerated above: (26) *intensity of influence,* (9) *desire to excel,* (12) *belief in their own powers,* (28) *mental work bestowed on usual studies,* (34) *tendency not to be changeable,* and (42) *quiet perseverance.* The 11 others are: (20) *trustworthiness,* (21) *conscientiousness,* (25) *wideness of influence,* (10) *desire to be leaders,* (13a) *tendency to rate general abilities* and (13b) *special talents correctly,* (35) *quickness* and (36) *profoundness of apprehension,* (48) *strength of memory,* (60) *strength or force of character,* and (33) *working with distant objects in view.* (c) In *intellectual* traits this group is above the Eminent Men average and is exceeded by three groups only, the Writers (EHCS), the Scientists, and the Philosophers. This high rat-

ing is confirmed by the IQ estimates. In *persistence of motive* the group rates at + 2.3, which is higher than any other rating on this trait excepting that of the Religious Leaders. (d) The range of trait ratings is, in the case of this subgroup, more consistently on the positive side of the common average than in any other. One clearly negative trait only appears, (11) indicating a tendency to *enjoyment of the limelight and applause.* The Soldier Statesmen resemble the Statesmen in this, while the Musicians and the Fighters distinctly exceed them in the same trait. It is the high rating on *balance,* confirmed by an even distribution of all traits and abilities, that characterizes the young geniuses in this group.

Comparison of the subgroups. (1) From a comparison of the corrected IQ scores (Tables 20A and 20B) of the subgroups in the 11 fields in which eminence was achieved it appears that the true mean IQ of the Philosophers was probably higher than the true mean IQ of any other field subgroup. The second highest average was probably that of the Scientists. These two subgroups are exceeded in the estimated true IQ by the Highest IQ's and by no other group. The Soldiers probably rated lowest in IQ, with the Musicians next above them. The records of the early years of the individuals who comprise the various subgroups offer no contradiction to these conclusions. Further differentiation among the subgroups is not profitable on the basis of the present findings. Of the 301 young geniuses reported in this study it may be said that they average in intelligence a rating far above the average of unselected youths, and that their true mean IQ was probably not less than 165.

(2) In 67 good traits the young Statesmen average + 1.6, future Religious Leaders + 1.4, Revolutionary Statesmen + 1.3, Philosophers, Scientists, and Fighting Soldiers + 1.2, Statesmen-Soldiers and Writers (EHCS) + 1.1, Musicians + 1.0, Writers (PND) +.9, and Artists +.8. The average for all of the groups on all of the traits is + 1.2 a noticeable positive deviation from the common average of unselected youths.

(3) (a) In the single trait of *strength or force of character* the Religious Leaders and the Revolutionary Statesmen approach + 3, the upper limit. No group is rated below

+ 1.0 on this trait; the Musicians, ranking + 1.3, reach the lowest score. (b) In *intellectual* traits the Philosophers and the Scientists rate highest (+ 2.1), significantly nearer the upper limit (+ 3) than the common average of unselected individuals. The Fighting Soldiers, the only group rating below + 1.0 on this group of traits, are scored +.9. On the combined *self* traits the Statesmen and the Revolutionary Statesmen rate highest (+ 1.9), the Artists and the Statesmen Soldiers lowest (+ 1.2). On the *activity* traits the young Fighters are distinctly above any other group (+ 2.2). The Writers (PND and EHCS) are lowest in activity (+.7). In the *social* traits the Soldiers rate highest (+ 1.7), the Artists lowest (+.5). In *balance* the young Statesmen rate highest (+ 1.9) while the Revolutionary Statesmen (—.1) and the Writers (PND) (—.6) are in this trait definitely below the common average of unselected youths. In the *emotional* traits the deviations are slight. The range is from (+.9) Statesmen to (+.3) Statesmen Soldiers. Here the select group deviates only slightly—but positively—from the generality. In *persistence of motive* the range is from Writers (PND) (+.9) to Religious Leaders (+ 2.7). The average on the *persistence* traits for all of the groups together is higher than the average for the *intellectual* traits. It is exceeded for the entire group by the rating in one trait only—that for *strength or force of character.*

Conclusion. When the traits of the young geniuses in the subgroups are compared, the First Ten are conspicuous for their *persistence;* the Highest IQ's for their *brightness.* When subgroups are arranged according to the field in which eminence was later achieved all are found to rate particularly high in *strength or force of character, intellectual* traits (except in the case of Soldiers), *self* traits, *activity* traits (except in the case of the two groups of Writers), and *persistence of motive.* It is the combination of superior traits that is particularly conspicuous in all of the subgroups and in the group as a whole.

The rare and striking personality of genius was, in the case of our subjects as a whole, manifested even in early youth by behavior that deviated from that of average individuals so pronouncedly that the record of its appearance was preserved in documentary form. The remarkable traits

TABLE 49

TRAIT RATINGS OF 16 GROUPS OF YOUNG GENIUSES

Trait number	First Ten	Last Ten	Highest IQ's	Lowest IQ's	Eminent Men Average	TRAITS	Trait number	Artists	Writers (PND)	Musicians	Writers (EHCS)	Soldiers (Statesmen)	Soldiers (Fighters)	Scientists	Philosophers	Revolutionary Statesmen	Religious Leaders	Statesmen	Eminent Men (Group C) Average
						I. EMOTIONAL (14)													
1	.8	1.2	1.3	.8	1.0	1. *General tendency to be cheerful* (as opposed to being depressed).	1	.6	.7	1.8	.4	1.0	1.1	1.3	.5	1.3	1.3	1.9	1.0
2	.2	.2	.1	.2	.1	2. *Absence of tendency to quick oscillation between cheerfulness and depression.*	2	.5	−1.5	−.8	.6	.3	.9	1.0	0.0	−.2	.2	.8	.1
3	−.6	−.2	−.1	.2	−.4	3. *Absence of occasional liability to extreme depression.*	3	−.2	−2.3	−.2	−.4	−.1	.1	.6	−.4	−1.0	−.4	.3	−.4
4	−1.0	−1.0	−.7	−.7	−.5	4. *Absence of liability to anger.* Tendency not to flare up on slight provocation.	4	.3	−1.3	−.2	−.7	−1.6	−.6	.2	−.3	−1.6	−.3	.5	−.5
5	−.1	.9	.3	1.3	.3	5. *Absence of liability to be fearful* (anxious). Tendency not to find causes of worry.	5	−.8	.6	.3	−.5	.6	1.4	.6	−.2	.5	−.1	1.0	.3
6	1.2	1.6	.4	.7	1.0	6. *Tendency to be imaginative.* Degree to which he invents fanciful situations.	6	.8	2.8	1.8	1.3	.4	.4	.3	.5	1.3	.8	0.0	1.0
7	1.3	1.8	1.2	.7	1.3	7. *Degree of esthetic feeling.*	7	2.8	2.8	3.0	1.2	.5	.1	.2	.8	.4	.9	1.3	1.3
8	.6	1.2	1.4	.4	.7	8. *Degree of sense of humor.*	8	.6	.7	1.8	.7	−.5	.5	.1	.3	.6	1.0	1.6	.7
43	1.1	2.3	1.0	.6	1.2	43. *Degree of excitability* (as opposed to being phlegmatic).	43	−.1	2.7	2.3	.9	1.0	1.1	−.2	.8	2.7	1.6	.5	1.2
44	.3	1.9	.5	.3	.8	44. *Sensitiveness to criticism.*	44	0.0	1.5	1.3	1.8	.2	1.0	−.2	.6	1.3	.6	.6	.8
47	.8	.2	1.0	−1.6	.5	47. *Degree of introversion* (i.e., tendency to live within himself).	47	.1	2.1	.3	1.5	−1.3	2.5	.3	2.0	.1	.5	−.1	.5
59	.9	−.4	.3	0.0	.5	59. *Reserve.* Tendency to remain silent on matters of personal concern.	59	.4	−.2	−.2	.8	.9	.4	1.3	1.0	−.4	−.4	1.3	.5
62	1.1	.7	.6	.3	.9	62. *Constancy in friendship* for persons of the same sex.	62	.4	1.7	.3	1.6	−.1	.4	.3	.9	.3	1.3	1.1	.9
63	0.0	−.1	−.4	.1	.2	63. *Constancy in affection* for persons of the opposite sex.	63	0.0	−.2	.1	1.3	.4	.4	.4	0.0	−.4	.6	.3	.2
						II. EMOTIONAL-SOCIAL (15)													
52	.4	1.5	−.1	.7	1.0	52. *Family affection.*	52	.9	1.3	1.3	1.8	.9	.4	.4	.9	.4	1.6	1.5	1.0
53	1.3	.9	1.5	0.0	1.1	53. *Friendship or affection* for members of the *same sex.*	53	.8	2.0	.8	1.6	.1	0.0	.4	1.2	.9	1.9	1.2	1.1
54	.9	.4	1.6	.2	.6	54. *Friendship or affection* for members of the *other sex.*	54	−.1	2.1	.7	1.5	.3	.3	.3	0.0	.6	.1	.5	.6
55	1.8	1.5	.4	1.4	1.3	55. *Loyalty to friend or cause.*	55	.3	1.3	.9	1.2	2.3	1.5	.7	.8	2.1	2.5	1.3	1.3
57	1.2	.7	1.4	.8	.9	57. *Punctilious behavior. Gentlemanliness. Formal courtesy.*	57	.4	.9	1.0	.8	.6	1.1	1.0	.5	.5	.9	1.6	.9
						III. SOCIAL (15)													
15a	.4	.2	1.3	.8	.4	15a. *Fondness for large social gatherings.*	15a	.2	.5	1.1	−.6	.3	1.1	.3	.1	.9	.2	1.2	.4
15b	1.4	.8	2.0	.3	1.3	15b. *Fondness for small circle of intimate friends.*	15b	.4	2.2	1.0	1.4	.3	.5	1.5	1.8	1.1	.8	1.8	1.3
16	.8	.9	1.0	1.3	.8	16. *Fondness for companionship as opposed to solitariness.*	16	.7	.9	1.3	−.4	.7	1.6	1.0	.3	1.0	−.2	1.4	.8
17	.9	2.0	.6	1.0	1.3	17. *Impulsive kindness.* (To be distinguished from No. 18.)	17	.7	1.5	1.3	1.2	1.2	1.5	.8	.8	1.7	1.7	1.6	1.3
18	.9	1.3	.4	.5	1.1	18. *Tendency to do kindnesses on principle.*	18	.8	.8	.8	.7	.4	.8	1.0	1.1	.9	2.2	1.7	1.1
19	1.1	1.0	.5	.9	.9	19. *Degree of corporate spirit* (in whatever body interest is taken).	19	−.3	−.4	−1.0	.3	2.5	1.9	.2	1.0	2.4	1.8	1.9	.9
20	1.7	1.7	1.0	1.1	1.7	*20. *Trustworthiness.* (Keeping his word or engagement.)	20	.8	1.0	.6	1.9	2.3	1.5	1.7	1.7	2.4	2.9	2.5	1.7
21	1.6	2.0	1.7	.5	1.7	*21. *Conscientiousness.*	21	.8	1.0	1.3	2.4	1.0	.3	1.3	1.8	2.5	3.0	2.4	1.7
24	.5	1.7	.6	.8	1.1	24. *Desire to be liked by his associates.*	24	.8	1.5	1.3	.6	.5	1.0	1.0	.6	1.2	1.2	1.6	1.1
25	1.9	1.7	2.7	1.2	1.7	*25. *Wideness of his influence.*	25	1.1	1.6	1.4	1.1	1.9	2.2	1.4	1.2	2.6	2.1	2.2	1.7
26	2.2	1.7	2.8	.9	2.0	*26. *Intensity of his influence on his special intimates.*	26	1.3	1.8	1.7	1.9	1.7	1.2	1.8	2.0	2.5	2.5	2.7	2.0
27	1.1	.4	1.7	.7	.9	27. *Degree of tact in getting on with people.*	27	.8	.7	.3	0.0	0.0	.9	1.2	.5	.7	1.1	2.5	.9
46	1.2	1.4	.2	1.1	1.2	46. *Sense of corporate responsibility.*	46	.3	−.3	−1.1	1.3	2.0	2.0	.6	1.2	2.4	2.9	2.2	1.2
51	1.3	2.0	1.5	1.1	1.4	51. *Sense of justice.*	51	.3	1.0	.6	1.8	1.8	1.2	.7	1.4	1.9	1.9	2.2	1.4
61	.1	−1.3	0.0	.4	−.2	61. *Conventionality.* Observance of accepted standards.	61	−.8	−1.0	−.5	−.2	.4	.7	.2	.3	−1.7	−.5	1.3	−.2
						IV. SELF (NEGATIVE) (2)													
11	−.4	.2	−1.3	−.7	−.2	11. *Absence of eagerness for the admiration of the crowd.* Absence of enjoyment of the limelight and of applause.	11	0.0	−.5	−1.3	−.1	−.7	−1.7	.2	.6	0.0	.4	−.6	−.2
14	0.0	1.0	−.7	.2	.5	14. *Absence of offensive manifestation of self-esteem* (superciliousness).	14	.3	.3	.8	.4	−.5	.2	.8	−.2	.7	.9	1.2	.5

* "Characteristics of eminence." Trait in which average for Group C is above 1.5.

TABLE 49—*Continued*

TRAIT RATINGS OF 16 GROUPS OF YOUNG GENIUSES

Trait number	First Ten	Last Ten	Highest IQ's	Lowest IQ's	Eminent Men Average	TRAITS	Trait number	Artists	Writers (PND)	Musicians	Writers (EHCS)	Soldiers (Statesmen)	Soldiers (Fighters)	Scientists	Philosophers	Revolutionary Statesmen	Religious Leaders	Statesmen	Eminent Men (Group C) Average
						V. SELF (POSITIVE) (5)													
9	2.7	1.9	3.0	2.3	2.6	* 9. *Desire to excel at performances* (whether of work, play, or otherwise).	9	2.9	2.5	2.9	2.7	2.4	2.7	2.6	2.6	2.2	2.8	2.9	2.6
10	2.0	2.0	2.5	1.5	1.7	*10. *Desire to impose his own will on other people.* Desire to be leader.	10	.3	1.9	1.3	1.9	1.9	2.2	1.1	1.3	2.9	2.5	1.8	1.7
12	2.1	2.0	2.8	2.3	2.0	*12. *Belief in his own powers.* Self-confidence.	12	2.1	1.5	2.7	2.0	2.0	2.6	2.3	1.7	2.7	1.8	2.9	2.0
13a	2.0	1.4	2.8	1.8	1.7	*13a. *Esteem of himself as a whole.* Tendency to rate his own abilities correctly.	13a	1.1	1.1	1.0	1.9	1.6	2.6	1.7	1.6	2.1	1.9	2.3	1.7
13b	2.2	1.7	2.9	1.8	2.0	*13b. *Esteem of his special talents.* Tendency to rate them correctly.	13b	1.9	2.1	2.0	1.8	1.4	2.0	2.1	1.4	2.4	2.3	2.5	2.0
						VI. INTELLECTUAL (8)													
23	2.4	2.4	2.2	.4	1.8	*23. *Absence of readiness to accept the sentiments of his associates.*	23	.3	1.7	1.0	2.1	1.2	1.5	2.3	2.3	2.5	1.3	1.4	1.8
35	2.5	2.1	3.0	1.3	2.0	*35. *Quickness of apprehension.*	35	1.3	1.7	1.9	1.8	1.7	2.0	2.2	2.5	2.4	1.4	2.4	2.0
36	2.6	2.2	2.6	1.0	2.3	*36. *Profoundness of apprehension.*	36	1.3	2.2	1.3	2.5	1.5	1.1	2.8	2.9	2.0	2.7	2.4	2.3
37	1.7	.5	1.9	1.2	1.2	37. *Soundness of common sense.*	37	.5	–.3	.1	.8	1.7	1.2	2.0	1.8	.5	1.5	2.6	1.2
38	2.2	2.3	2.3	.8	2.1	*38. *Originality of ideas.* (Independence of thought, creativeness.)	38	2.3	2.5	2.8	2.0	.7	.8	2.7	2.8	2.4	1.6	1.5	2.1
45	2.2	.4	2.0	1.0	1.3	45. *Degree to which action and thought are dependent on reason.*	45	.6	–.9	–.8	1.4	.8	.9	3.0	2.7	1.2	1.5	2.6	1.3
48	2.3	1.8	2.6	.8	2.0	*48. *Strength of memory.*	48	1.1	2.1	1.7	2.7	.9	.2	2.3	2.3	2.3	2.2	2.4	2.0
64	2.5	1.9	2.1	1.9	1.9	*64. *Keenness of observation.*	64	1.8	2.3	1.4	1.8	1.8	1.6	2.7	1.4	1.9	.9	1.8	1.9
						VII. INTELLECTUAL-SOCIAL (2)													
22	1.0	1.1	1.6	.3	1.0	22. *Interest in religious beliefs and ceremonies.*	22	.3	1.7	–.1	1.6	.3	–.5	–.1	1.8	.6	2.8	.8	1.0
39	1.3	1.5	.5	.5	1.3	39. *Pure mindedness.* (Extent to which he shuns vulgarity or immorality.)	39	.9	1.1	.7	1.6	.8	.6	1.5	1.0	1.1	2.2	1.7	1.3
						VIII. INTELLECTUAL-EMOTIONAL (2)													
49	1.0	.8	.8	–.1	.9	49. *Self-criticism.*	49	.5	1.8	.8	1.6	.1	.1	.2	1.3	1.2	1.3	.8	.9
58	1.4	–.2	1.3	1.5	1.0	58. *Neatness, accuracy, attention to detail.*	58	2.1	–1.0	1.5	1.4	1.1	1.9	2.7	1.0	–.1	.1	1.2	1.0
						* *IX. INTELLECTUAL ACTIVITY (2)*													
28	2.6	1.0	2.8	.8	1.7	*28. *Extent of mental work bestowed upon usual studies.*	28	.5	1.1	.5	2.3	1.1	.7	2.3	2.8	.2	2.3	2.7	1.7
29	2.6	2.6	3.0	1.4	2.4	*29. *Extent of mental work bestowed upon pleasures, special interests, etc.*	29	2.0	2.6	2.9	2.8	1.1	1.1	2.8	2.8	2.7	2.6	2.3	2.4
						X. BALANCE (1)													
50	1.0	.3	1.2	1.4	1.0	50. *Balance.*	50	1.1	–.6	.6	.3	1.0	1.2	2.1	1.3	–.1	1.2	1.9	1.0
						XI. STRENGTH OR FORCE OF CHARACTER (1)													
60	2.6	1.9	2.6	2.1	2.0	*60. *Forcefulness.* Strength of character as a whole.	60	1.6	1.4	1.3	1.8	2.5	2.5	2.3	1.4	2.8	2.8	2.4	2.0
						XII. ACTIVITY (PERSISTENCE) (4)													
32	2.3	1.4	2.6	2.0	2.0	*32. *Degree to which he works with distant objects in view.*	32	2.3	.4	2.6	2.1	2.0	2.4	2.7	2.3	1.9	2.4	2.5	2.0
33	2.8	1.8	2.3	2.1	2.3	*33. *Tendency not to abandon tasks in the face of obstacles.*	33	2.1	.8	2.9	2.1	2.4	2.7	2.6	2.5	2.9	2.9	2.3	2.3
34	2.9	2.2	2.7	1.7	2.5	*34. *Tendency not to abandon tasks from mere changeability.*	34	2.1	1.3	2.9	2.5	2.4	2.1	2.8	2.9	2.9	2.7	2.6	2.5
42	2.7	1.7	2.7	2.5	2.3	*42. *Degree of strength of will or perseverance.* Quiet determination.	42	2.3	.6	2.7	2.0	2.6	2.8	2.8	2.6	2.2	2.7	2.6	2.3
						XIII. ACTIVITY (PHYSICAL) (6)													
30a	1.1	1.2	.7	2.0	1.2	30a. *Degree of bodily activity during school or business hours.* Energy or restlessness.	30a	1.2	1.1	.9	–.4	2.2	2.5	1.0	.5	1.9	1.4	1.8	1.2
30b	.5	.6	0.0	1.5	.6	30b. *Degree of bodily activity in pursuit of pleasures.*	30b	–.2	.5	–.3	–1.5	2.6	2.7	.8	–.4	.6	1.3	1.4	.6
31	0.0	1.0	.8	2.0	.4	31. *Tendency to self-expression in action rather than in thought.* Hyperkinetic vs. hypokinetic.	31	.8	–.8	.9	–1.5	2.6	3.0	0.0	–1.6	1.7	1.6	.9	.4
40	–.4	–.1	–.9	1.2	.3	40. *Skill in, and devotion to athletics, sports, or physical feats.*	40	–.4	.2	–1.6	–1.8	2.2	2.3	.3	1.3	0.0	.7	.6	.3
41	–.6	.7	–.8	1.7	.5	41. *Physique* (soundness of bodily constitution. Good health).	41	.7	–.5	.2	–.7	1.9	1.4	1.2	.3	.6	1.3	.8	.5
56	1.4	.7	.4	1.4	1.5	56. *Physical bravery.*	56	0.0	1.1	0.0	.3	2.6	2.9	.8	.3	1.8	.8	.7	.9
Ave. 67 Traits					1.2	Average (All Traits) (67)		.8	.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.2

* "Characteristics of eminence." Trait in which average for Group C is above 1.5.

of youth were indicative of future greatness. The dynamic quality which, developing, raised performance to so high a level and won for the character it invigorated so large a sphere of influence was present and recognized even in childhood. And even in his earliest years the personality of the genius was something more than the sum of its extraordinary parts. A satisfactory evaluation of the unique character of genius as a whole can be attempted only when an x-dimensional method of psychological measurement has been devised and perfected.

CHAPTER XIII

CONCLUSIONS

The questions proposed at the outset of this study may now be answered, at least tentatively, as a result of a detailed examination of historical records and the evidence of the numerous historiometric measurements described in Chapters II to XII. The primary concern of the investigation as a whole was this: What degree of *mental endowment* characterizes individuals of genius in their childhood and youth? Secondary in the present study, although otherwise of no less importance, was the question of the presence even in childhood of *traits of character other than "brightness"* which contribute to later high achievement. These two questions were the starting point for the discussions of the preceding pages. Each has been considered in detail. During the progress of the investigation it became evident that consideration of the main problem involved an additional question: What was the *hereditary background* of a group of young persons who later achieved very great distinction and what contribution was made by early *environment* to their development? The answer to this third question has been given a place because of the light it throws upon the problem as a whole.

Stated briefly in their logical order the three conclusions are as follows:

1. *Youths who achieve eminence have, in general, (a) a heredity above the average and (b) superior advantages in early environment.* It is evident that the forebears of young geniuses have made a definite contribution both physically and socially to the extraordinary progress of their offspring. The son of an eminent Lord High Treasurer of Ireland (Boyle), of an ambitious army general (Bulwer), of a president of the United States (Adams), of a king's first aide-de-camp (Hugo), of a British admiral (Penn), of one of the most eminent scholars of his age (Scaliger), of a president of the Parlement of Paris (Thou), of a Royal Chaplain (Addison), may be expected to rise to a position above the

average. The inheritance of a child of able parents is undoubtedly superior, yet it is not sufficient in itself to account for genius. Indeed there have been many Lord High Treasurers, many ambitious generals, many presidents of the United States, whose sons did not, and apparently could not, achieve such eminence as our subjects; and there were other children of the same parents, the brothers and sisters of our young geniuses, who did not achieve eminence equal to that of the peculiarly gifted member of the family. The individual is the inheritor of ability, but he is unique with respect to the physiological and psychological organization of his inherited qualities. A favorable ancestral background is a definite asset; yet the peculiar combination of inherited traits which makes up a genius—the most favorable chance combination among many only less favorable ones—is an equally significant factor, and so an eminent man may be the son of a tinker (Bunyan), of a stonecutter (Canova), of a mason (Carlyle), of a strapmaker (Kant), of a day laborer (Cook), or a peasant (Jansen).

The average opportunity of our young geniuses for superior education and for elevating and inspiring social contacts was unusually high. Instruction by leading scholars of the day and friendly association with contemporary notables were not exceptional experiences. The extraordinary training for leadership received by Pitt the younger, John Quincy Adams, Niebuhr, and the Humboldt brothers; the specialized instruction of Mozart, Weber, and Michelangelo undoubtedly contributed to the rapid progress of these great men among the great. But again there were exceptions. The struggling cobbler Winckelmann was able to do little for his son, who, none the less, became an eminent archeologist. The opportunities offered to Faraday, Lincoln, or Blücher were apparently not favorable to success. Thus it appears that while individual chances for eminence are usually dependent upon a favorable hereditary background and are increased by favorable opportunity, eminence is not a function either of heredity or of environment alone.

2. *Youths who achieve eminence are distinguished in childhood by behavior which indicates an unusually high IQ.* Voltaire wrote verses "from his cradle"; Coleridge at 3 could read a chapter from the Bible. Mozart composed a

minuet at 5; Goethe, at 8, produced literary work of adult superiority. Schelling at 11 was enrolled in a class with boys of 18 and 19 who recognized him as their equal in knowledge and ability. Accounts of the early years of our subjects are full of examples of early mental maturity. In their reported interests, in their school standing and progress, and in their early production and achievement, the members of the group were, in general, phenomenal. Later achievement was foreshadowed in youthful behavior, and it is probable that early manifestations of superior intelligence would have been found in every case had the records of all been faithfully kept.

Since there is a constant relation between the sufficiency of the account and the estimated IQ of the subject (the IQ increasing with the reliability of the data), it appears that the true IQ's of the subjects of the present study are even higher than the obtained estimates. A corrected estimate indicates that the true mean IQ for the group is not below 155 and probably at least as high as 165. The average of the obtained IQ estimates for a small group of cases more adequately reported than the others is 175 for the first 17 years of life. The corrected estimate, indicating a nearer approximation to a true IQ, is for the same group 184. It is probable that a number of the cases included among the 301 actually ranked in intelligence not far below the composition scores of several of their number and of these many are well above the 200 IQ mark. Arnauld, Comte, Goethe, Grotius, Laplace, Leopardi, Michelangelo, Newton, Pascal, the younger Pitt, Sarpi, Schelling, Voltaire, and Wolsey probably rated at 200 IQ or even higher. Occasionally in our day a case is reported that ranks at this high level. Shall we expect in such an instance a Comte, a Grotius, a Newton, or a Michelangelo? We are probably warranted in expecting superior adult achievement wherever in childhood the IQ is above 150. But we may not be warranted in expecting a world genius even if the 200 IQ level is reached; for there are other factors involved in achieving greatness besides an essential degree of intellectual capacity. The tests—and it is in comparison with test performances that the IQ's of our cases have been reckoned—cannot measure spontaneity of intellectual activity; perhaps, too, they do not sufficiently

differentiate between high ability and unique ability, between the able individual and the extraordinary genius. The significant conclusion in the present study is derived from the evidence it presents that *the extraordinary genius who achieves the highest eminence is also the gifted individual whom intelligence tests may discover in childhood.* The converse of this proposition is yet to be proved.

3. That all equally intelligent children do not as adults achieve equal eminence is in part accounted for by our last conclusion: *youths who achieve eminence are characterized not only by high intellectual traits, but also by persistence of motive and effort, confidence in their abilities, and great strength or force of character.* The average score of all the good traits of the young geniuses is distinctly above the average score of the same traits in unselected individuals. The superior youths considered in the present study pursued high ideals, developed significant interests, and created new expressions of scientific and philosophical thought before they had reached the age of manhood. Schelling had outlined his philosophy at 20, Hume had defined his views before he was 25, Milton at 21 wrote an ode pronounced by an eminent critic to be perhaps the most beautiful in the English language. Peel at 24 was Chief Secretary for Ireland, Raphael at 21 painted the *Granduca Madonna,* Beethoven at 18 was appointed Chamber Musician to his princely ruler, Newton had unfolded his doctrine of light and colors before he was 20. Bacon wrote his *Temporis Partus Maximus* before the age of 20, Montesquieu had sketched his *Spirit of Laws* at an equally early age, and Jenner, when he was still younger, contemplated the possibility of removing from among the list of human diseases one of the most deadly scourges of the race. Achievements like these are not the accidents of a day. They are the natural outgrowth in individuals of superior general powers of persistent interest and great zeal combined with rare special talents.

These conclusions summarize the facts concerning a special group of geniuses, but the group concerned is representative of all those whose later achievements reach the highest level, and so conclusions true for its members are probably true for other similar, or approximately similar, individuals. Appearing usually in superior families (and

the more usually so when educational and other early environmental inequality persists) young geniuses are found to display in childhood superior intelligence, superior talents, and superior traits of character. The converse has not been definitely demonstrated, but the appearance in childhood of a combination of the highest degree of general ability, special talent, seriousness of purpose, and indomitable persistence may well be greeted as indicating a capacity for adult achievement of the highest rank. The child is father of the man: the gifted youth will be the leader of the future.

"'Tis only from the sturdy and the good that sturdy young are born; in steers, in steeds, appear the merits of their sires; nor do fierce eagles beget timid doves. Yet training increases inborn worth, and righteous ways make strong the heart; whenever righteousness has failed, faults mar even what nature had made noble!"[1] The early development of our 301 geniuses illustrates and confirms these words of Horace. Heredity sets limits, but within these limits the adequate training of the most gifted—and so also of their less distinguished fellows—may raise them to the designed stature of men unmarred by the defects of insufficient experience, and thus realize in each one the complete development of inborn worth.

[1] Horace, *Carmina*, IV. iv. 29 ff.

PART II. CASE STUDIES

CHAPTER XIV

CASES RATED AT AI IQ 100 TO 110

In Part I methods of rating certain mental traits of 301 historical geniuses were described and the results of a historiometric evaluation of their youthful abilities were presented and discussed. The evidence from which the traits were rated is offered in much abbreviated form in the pages of Part II. The 282 cases of Group A are followed by the 19 cases of Group B. The members of each of the two groups are arranged in rank order of AI (or BI) IQ from the lowest to the highest. In Group A the IQ's range from 100 to 190; in Group B from 105 to 155. The extent to which the IQ rating depends upon the amount of information available may be noted. At the same time striking differences in childhood ability and interests may be found even in the scanty records jotted down by casual contemporaries and further abbreviated here.

A brief bibliography is appended to each study, containing the principal references for the early period. The following encyclopedias and biographical dictionaries were regularly consulted throughout the investigation:

Encyclopedia Brittanica, eleventh edition
Century Cyclopedia of Names, 1911
Lippincott's Pronouncing Biographical Dictionary, fourth edition, revised
Dictionary of National Biography, 1885
Brockhaus Konversations Lexikon, 14. Auflage
Meyers Konversations Lexicon, 6. Auflage
Allgemeine Deutsche Biographie, 1875
La Grande Encyclopedie
Larousse, *Grand Dictionnaire Universel*
Nouveau Larousse Illustre
Michaud, *Biographie Universelle*
Nuova Enciclopedia Italiana, 1875

Reference to these works is not made specifically unless they offered the only available material in a given case.

Once more the reader should be reminded that the task of the judges in each case was, not to estimate what the IQ of a given subject may have been, as judged by his performance in adult life, but to estimate the IQ that would be necessary to account for *such and such recorded facts relating to childhood and youth.*

JEAN DE LA FONTAINE (1621–1695)

The Most Noted French Fabulist

AI IQ 100 AII IQ 125

I. *Family standing.* La Fontaine's paternal ancestors were for the most part successful merchants. Both father and grandfather held, each in his time, the position of Commissioner of Waters and Forests with the title of Councillor. On the maternal side the grandfather was a magistrate of Coulomiers, whose family had a "solid reputation for science, learning, and literary culture."

II. *Development to age 17.*

1. Interests. As a youth, La Fontaine is said to have loved solitary wandering and to have "found a melancholy happiness in idling away his time." Accustomed to go with his father on daily rounds through the forests he developed an interest in woodcraft and a profound love of animals.

2. Education. The boy's formal, classical education, begun at 14, is said to have been carried on under the direction of country schoolmasters. Sometime in his teens he attended the college of Château-Thierry, where he was instructed in writing, grammar, Latin, and theology.

3. School standing and progress. "School and school tasks were alike irksome to him. . . . Intelligence was not lacking, but his tastes were peculiar, and no amount of discipline succeeded in moulding him to be like other boys." His teachers pronounced him a "well-disposed, but hopeless dunce."

4. Friends and associates. Young La Fontaine "did not lack companions." "His brother . . . although two years younger . . . was probably as far advanced in his studies. The two brothers Maucroix were their chief friends." François Maucroix was "vivacious, witty, and possessed of a good memory."

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (See II 1.)

AI IQ 100 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* La Fontaine, at 20, determining to enter upon an ecclesiastical career, became, upon the completion of his college course, a member of the Oratory in the Rue Saint Honoré; but soon he tired of the severe life, left the institution, and devoted himself to secular pursuits. The following years were filled with

unimportant meanderings. In this period the young man's 22nd year alone is notable, for then occurred his awakening to the beauty of poetry and the beginning of his first efforts at versification.

AII IQ 125 (Rel. coeff. of data, .43)

REFERENCES

Hamel, Frank, *Jean de la Fontaine*, New York, Brentano, 1912.
Shelley, Mrs. Mary Wollstonecraft (Godwin), *Eminent Literary and Scientific Men of France*, London, 1838, Vol. I, pp. 150–183.

ANDRÉ MASSÉNA, DUC DE RIVOLI AND PRINCE D'ESSLING (1758–1817)

A French Marshal

AI IQ 100 AII IQ 105

I. *Family standing.* Masséna "was an orphan from infancy." There is no record of any member of his family except an uncle who commanded a battleship.

II. *Development to age 17.*

1. Interests. Masséna embarked as a cabin boy on his uncle's battleship, but "he did not care much for the sea."
2. Education. "His education was sadly neglected."
3. School standing and progress. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 100 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* At the age of 17, Masséna enlisted in the Royal Italian regiment then in the service of France, and in a short time had become corporal, sergeant, and finally under-officer (adjutant). In the latter position he remained for fourteen years, until, at 31, finding that his lowly origin would forever prevent him from receiving a commission, he left the army.

AII IQ 105 (Rel. coeff. of data, .11)

REFERENCE

Nouvelle Biographie Universelle.

SEBASTIAN LE PRESTRE DE VAUBAN (1633–1707)

A Celebrated French Military Engineer and Marshal

AI IQ 100 AII IQ 125

I. *Family standing.* The Vauban family, members of the nobility of Nivernais, had possessed the Vauban estate for more than two hundred and fifty years, but at the time of Sebastian's birth they were sadly impoverished.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. Left an orphan at the age of 10, young Vauban was given a home by the Prior of Saint-Jean at Semur, and to this

priest the youth owed all of a very incomplete education which included probably little more than the three R's and some of the elements of geometry.

3. School standing and progress. (No record.)

4. Friends and associates. Until the age of 17 Vauban lived a care-free life, playing with the children of the streets and sharing all their joys and sorrows.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 100 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Tiring of the monotonous village life, Vauban, at 17, enlisted in the regiment of Condé; at 19 he assisted in the construction of defense fortifications at Clermont-en-Argonne, and during the same year distinguished himself at the siege of Saint-Menehould; at this time he entered with great ardor upon the study of mathematics and fortifications. At 20, after being taken prisoner by his royalist enemies, Vauban, the rebel, was converted by the kindness of the astute Mazarin into a devoted servant of the King. Between the ages of 22 and 26 our young engineer had taken part in, or directed, ten sieges with distinction, had been several times wounded, and had received as a reward for his services the free gift of a company in the famous Picardy regiment.

AII IQ 125 (Rel. coeff. of data, .43)

REFERENCE

Dire, M. Eugene, Notice historique sur le vie et les travaux du Maréchal de Vauban (in *Economistes-Financiers du XVIIIe Siècle*, Paris, Guillaume, 1843, pp. 1–29).

JOHN BUNYAN (1628–1688)

A Celebrated English Writer

AI IQ 105 AII IQ 120

I. *Family standing.* Bunyan's father was a tinker or brazier and a member of a village family of long standing that "had for some generations been going down in the world." The mother came of humble but "decent and worthy" people, and both parents, though poor, were of good repute among their neighbors.

II. *Development to age 17.*

1. Interests. When he was 9 or 10 Bunyan's spiritual interest was first awakened; his tender conscience became oppressed by a conviction of sin, and yet he continued to enjoy the usual pleasures of the village.

2. Education. In spite of the "meanness and inconsiderableness" of his parents, Bunyan was put to school "to learn both to read and to write." His progress could not, however, have been great, for the Bedford grammar school which he attended was at that time under the direction of a cruel and wretched sot.

3. School standing and progress. (See II 2.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Before he was 18 Bunyan had begun to assist his father at the forge. Then, during a period of war service which interrupted his labors at home, he experienced a second spiritual awakening. The impression which this created, coupled with the influence of the religious maiden whom he married, at 20, and association with her righteous father, led him to renounce pleasure and turn to a sober and spiritual life. After several years of severe mental struggle and frequent periods of despondency, Bunyan, at 25, found in the little community of "Christian Brothers" the spiritual peace he had sought. Two years later, having become a deacon in this order, he entered upon his preaching career.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

Venables, Edmund, *Life of John Bunyan,* London, Scott, 1888.
Froude, James A., *Bunyan,* New York, Harper, 1899.
Macaulay, Thomas Babington, "Bunyan" (in *Biographical Essays,* Leipzig, Tauchnitz, 1850).

MIGUEL DE CERVANTES (1547–1616)

A Celebrated Spanish Poet and Novelist

AI IQ 105 AII IQ 110

I. *Family standing.* Cervantes' paternal grandfather was a man much honored by his community and the holder of various responsible legal positions. The father of Cervantes, however, a medical practitioner "of little authority" and without the training of a physician, achieved no such high standing. "His career has throughout the stamp of poverty;" he was "a restless wanderer from place to place." Of the mother's family no record has been found except that her father owned a patch of land at Arganda.

II. *Development to age 17.* (No record.)

AI IQ 105 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* The earliest record of the life of Cervantes reports him at the age of 21 a student in the City School of Madrid. It was at this time that he produced certain "mediocre" poems, published in a miscellany of verses, still extant, commemorating the death of Isabel de Valois. At 22 he took part in a duel of some kind and an order was issued for his arrest, punishment, and exile; however, he concealed himself in Italy and probably entered the service of a Roman prelate, later enlisting in the same country

in the ranks of a Spanish regiment. At 24, he took a gallant part in the naval battle of Lepanto, and the wound received there served him for the rest of his life as a great source of personal pride.

AII IQ 110 (Rel. coeff. of data, .11)

REFERENCE

Schevill, Rudolph, *Cervantes*, New York, Duffield, 1919.

JAMES COOK (1728–1779)

A Celebrated English Navigator

AI IQ 105 AII IQ 115

I. *Family standing.* Very little is known of James Cook's ancestry. His father, at first a common day-laborer, became the bailiff or head laborer on a small farm. A man of "industry, frugality, and skill in husbandry, he was, although very little educated, somewhat superior to his fellow laborers." Of the mother and her family nothing is recorded.

II. *Development to age 17.*

1. Interests. It is reported of James Cook that in schoolboy activities he was always ready with a scheme, and that he insisted on having his plans accepted by his playmates.

2. Education. Before he was 8 he is said to have learned his letters and a little reading from the daughter of a wealthy yeoman farmer, in whose household he ran errands and did chores. At 8 he was sent to school to learn writing and arithmetic.

3. School standing and progress. Cook exhibited considerable aptitude in mathematics, and it is believed that the master of the estate paid for his further schooling because of the excellent progress he made in his first efforts toward learning.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. Before he was 8, young Cook had begun to assist his father in farm labor. In his 14th year or his 18th (according to one biographer) he began an apprenticeship of eighteen months to a grocer.

7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Cook finally carried out a long-cherished desire to go to sea, when he entered into the service of a shipping concern; it is reported that no unusual abilities were noticed in him at this time. However, he studied and worked to advance himself and at 25 had become ship's mate. His master aided his efforts in every way and would have given him command of a ship had he not left the company soon after his promotion.

AII IQ 115 (Rel. coeff. of data, .11)

REFERENCES

Kitson, Arthur, *Captain James Cook*, New York, Dutton, 1907.

Low, Lieut. Charles Rathbone, *Captain Cook's Three Voyages 'Round the World, with a Sketch of his Life*, London, Routledge, 1906 (?).

Kippis, A., *A Narrative of the Voyages 'Round the World Performed by Capt. James Cook*, London, Bickers, 1878.

WILLIAM COBBETT (1763[?]–1835)

A Noted English Political Writer

AI IQ 105 AII IQ 125

I. *Family standing.* Cobbett's father, the son of a day laborer, was a small farmer of experience and understanding, respected in his community. The mother belonged to the same community and social group as her husband.

II. *Development to age 17.*

1. Interests. Whether characteristic or not, it is reported of little William, that, at the age of 6, he made a small garden on top of a steep rock, carrying up the soil in the bosom of his little smock. In his early years, and when not busy with farm labor, William with his brother went to cricket matches, bathed in the Wey, or roamed about the castle park.

2. Education. Cobbett was taught by his father to read and write and to cipher. He and his brothers listened to the parental discourse on the subject of gardens and fields, their father's main interest.

3. School standing and progress. (No record of school attendance.)

4. Friends and associates. (No record of others than relatives.)

5. Reading. When at 11 years of age Cobbett ran away to Kew Gardens, he spent his supper money for a copy of *The Tale of a Tub*, which was, from that time until he was 20, his favorite book. The gardener whom he assisted lent him some gardening books, but these he "could not relish."

6. Production and achievement. The Cobbett boys were "bred at the plough tail." From 6 to 16 William drove birds from the turnip seed, weeded wheat, harrowed barley, hoed peas, and finally drove the team and held the plough. When at the age of 11 he ran away to Kew Gardens he assisted for a time in the garden work there.

7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 20, Cobbett first saw the sea and it drew him like a magnet. He resolved to enlist with the marines, but was rejected. At 21 he left home for London on a sudden impulse, tried various employments there, and showed his ability to do hard work and to overcome difficulties. When he was 22 his enlistment was accepted and he served thereafter for eight years—the last seven as noncommissioned officer—in Nova Scotia. During his mili-

tary service he memorized, and practiced mental exercises of various sorts; he worked at every kind of business the regiment's duties afforded, including bookkeeping, accounting, draughting, and statistical work, beside the routine military duties which he performed in an unusually thorough way. He succeeded, in his own estimation and apparently in that of his associates also, in making himself an important part of the regimental machinery.

AII IQ 125 (Rel. coeff. of data, .43)

REFERENCE

Benjamin, Lewis S., *The Life and Letters of William Cobbett in England and America,* London, Lane, 1913. (Two vols.)

NICHOLAS COPERNICUS (1473–1543)

The Founder of Modern Astronomy

AI IQ 105 AII IQ 130

I. *Family standing.* Copernicus' father is reported to have been either a physician, a baker, a smith, or a merchant; he was for eighteen years a justice of the peace and town councillor, and appears certainly to have been a merchant of some standing in Thorn. The maternal ancestors were members of an old and noble family, and for generations they held office in the city government; one uncle was the ruling Burgomaster of his city, another was the Bishop of Ermeland, while a half-uncle was the imperial Burgrave.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. At the age of 9, after the death of his father, Copernicus became the ward of his uncle, the Bishop. He received a scanty training at the Thorn lower school.
3. School progress and standing. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* When Copernicus was 18 his uncle made it possible for him to attend the University of Cracow where he studied astronomy under the noted Brudzewski and zealously pursued inquiries into science, philosophy, languages, and mathematics. He also cultivated the art of painting in order that he might be able to carry away remembrances of his travels in Italy. He spent two years (from his 22nd to his 24th year) in the study of theology in preparation for an ecclesiastical career, and at 23 went to Italy, where he remained for three years of study at the University of Bologna. Copernicus was 25 years of age when he was admitted by

proxy to a canonry at Frauenburg in his uncle's bishopric; at 26 he became Doctor of Philosophy and of Medicine.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

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SIR FRANCIS DRAKE (1545[?]–1596)

A Famous English Naval Hero

AI IQ 105 AII IQ 110

I. *Family standing.* Drake was descended on the paternal side from a family of yeomen. His father, a sailor, forced to flee from his own county to another because of his adherence to Protestantism, became a "hot gospeller" in the King's Navy. Through the favor of Lord Russell, a henchman of Henry VIII, the elder Drake was chosen one of the new clergy of the Reformation, and was appointed to a vicarage when his son Francis was 16. There is no record of the mother's family.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Young Drake received the elements of an education from his father. When he was about 10 his father bound him over to the master of a bark engaged largely in coast trade.

3. School standing and progress. (No record.)

4. Friends and associates. (No information except with reference to the seaman to whom he was apprenticed. See II 6.)

5. Reading. (No record.)

6. Production and achievement. The boy Drake "being painful and diligent in his apprenticeship to the sea captain, so pleased the old man by his industry that . . . at his death he bequeathed his bark to him."

7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* At 18 Drake was made purser or third officer of a ship trading to Biscay; between his 23rd and his 25th year he commanded the "Judith" in a slave trading expedition with Sir John Hawkins, a kinsman. In his first separate command it is reported that he blockaded Rio de la Hacha and, probably in excess of orders, took a Spanish despatch ship. It is stated further, that on his return from this expedition he served in the British Navy. At 24 he married, and at 25 undertook a second voyage to

recompense himself for losses due to Spanish treachery on the earlier expedition.

AII IQ 110 (Rel. coeff. of data, .11)

REFERENCES

Corbett, Julian S., *Drake and the Tudor Navy*, London, Longmans, 1912.
Corbett, Julian S., *Sir Francis Drake*, London, Macmillan, 1901.
Wood, William C. H., *Elizabethan Sea Dogs*, New Haven, Yale University Press, 1918, pp. 95–205.

MICHAEL FARADAY (1791–1867)

A Celebrated English Chemist and Physicist

AI IQ 105 AII IQ 150

I. *Family standing.* The father of Faraday was a journeyman blacksmith of good character who belonged to the Sandemanian Church and whose mother was a landholder of some education. Faraday's mother was uneducated, but industrious, a good wife, and a devoted parent. The family belonged to the class of small farmers and tradespeople.

II. *Development to age 17.*

1. Interests. (See II 6.)

2. Education. After attending a dame's school, Faraday was trained (from his 10th to his 14th year) at a common day school, where he learned little more than the elements of reading, writing, and arithmetic. At 14 he was apprenticed to a bookbinder.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. Faraday was a lively imaginative person who "could believe in the *Arabian Nights* as well as in the *Encyclopedia.*"

6. Production and achievement. (No record.)

7. Evidences of precocity. Young Faraday was a great questioner. He "could trust a fact and always cross-examined an assertion."

AI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* During his years of apprenticeship, Faraday carried on chemical experiments and attended lectures on natural philosophy. At the lectures of Mr. Tatum he met Magrath, Newton, Nicol, and others whose acquaintance stimulated his scientific interests. Later, when attending the lectures of Sir Humphry Davy, he took such excellent notes and illustrated them so well that he was glad to submit them some time after to Davy himself. In the meantime Davy's patronage had secured for his protégé an assistantship in the laboratory of the Royal Institution. Faraday spent three years (22 to 26) in travel and study. During this time, as Davy's amanuensis, he met Humboldt, Ampère, Arago, and other notable scientists. His first contribution to science (prepared and published when the author was 25) was an article in the *Quarterly Journal of*

Science on the analysis of some caustic lime; this was followed the same year by other scientific papers.

AII IQ 150 (Rel. coeff. of data, .60)

REFERENCES

Jones, Henry Bence, *The Life and Letters of Faraday*, London, Longmans, 1867. (Two vols.)

Thompson, Silvanus Phillips, *Michael Faraday, His Life and Work*, London, Cassell, 1901.

Gladstone, William E., *Michael Faraday*, London, Macmillan, 1873.

MEHEMET ALI (1769–1849)

Viceroy of Egypt

AI IQ 105 AII IQ 110

I. *Family standing.* Mehemet's reputed father was a peasant engaged in crude cultivation of the soil and in fishing; but he was also chief of a few watchmen furnished by the surrounding villages for the security of roads. He died when Mehemet was a little child and the boy was reared in the household of the petty governor of his native town.

II. *Development to age 17.*

1. Interests. Mehemet's mother fired her son's ambitions by often repeating to him a prophecy that he would one day attain the highest power and grandeur. The boy was skilful in settling disputes that arose among those who loitered about the antechambers of the rustic governor's house.

2. Education. Mehemet learned to read a little. He could repeat by rote the first chapter of the Koran, learned from the lips of an ignorant Moslem pedagogue.

3. School standing and progress. (No record.)

4. Friends and associates. A French merchant of the town became a kind friend to the bright-eyed, intelligent lad; he taught him the mysteries of trade and impressed upon him many ideas that influenced his whole life.

5. Reading. It is said that Mehemet never read a single book.

6. Production and achievement. While still a boy, Mehemet offered to collect a tax which had been levied on a village in the governor's district and which the villagers had refused to pay. The governor, surprised and amused at his audacity, gave him a handful of troops and authority to act. He proceeded with a remarkable combination of caution, courage, and promptitude of action; by a ruse he seized four of the principal inhabitants, and threatened to murder his prisoners if his orders were not obeyed. Because of his success in this undertaking, the governor made Mehemet a subaltern of his palace guard.

7. Evidences of precocity. (See II 6.)

AI IQ 105 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* Mehemet soon became captain of the guard. He married a relative of the governor and while still retaining his position in the palace became a trader in tobacco. (The above events are undated, but can be assigned with probable accuracy to this period.) At 29 Mehemet entered a regiment of volunteers to serve against Napoleon.

AII IQ 110 (Rel. coeff. of data, .11)

REFERENCE

Murray, Sir Chas. A., *A Short Memoir of Mehemet Ali,* London, Quaritch, 1898.

NICOLAS POUSSIN (1594–1665)

A Noted French Historical Painter

AI IQ 105 AII IQ 115

I. *Family standing.* Poussin's paternal ancestors were renowned soldiers, councillors of the King, and treasurers of France. His father took part in civil and religious wars; as a soldier of Henry of Navarre he had to meet all the expenses of his military life, and so found himself greatly reduced in circumstances at the time his son Nicolas was born. The mother, a woman of little education, was the daughter of an inheritance judge.

II. *Development to age 17.* Nothing is known about the childhood of Nicolas, beyond the fact that he was instructed by a priest of the village of Villers in Normandy.

AI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Poussin, when he was about 17, had his first lessons in painting from Quentin Varin, who was at that time working on three large pictures in the neighboring church of Les Andelys; he became Varin's technical assistant, and probably learned from him some valuable tricks of the trade. However, it is said that the master's instruction was of less value to his pupil than his encouragement. When he was 18 Nicolas went to Paris, where he was disappointed to find only mediocre painters; however, from one he learned the Flemish manner of applying color. His first Parisian patron introduced the youth to a man at court who had a collection of engravings after Italian masters. Poussin studied these and they strengthened his desire to visit Italy and view the originals. In the meantime, with his patron Avice, he visited Poitou and his first reported works, executed independently, were painted along the way for the lords of two chateaux and for the Capuchins at Blois in order to provide funds for the return journey to Paris. A year of illness at home was followed by five years' residence in Paris.

AII IQ 115 (Rel. coeff. of data, .11)

REFERENCES

Grautoff, Otto, *N. Poussin's Jugendjahre,* München, Müller, 1914.
Denio, Elizabeth, *N. Poussin, His Life and Work,* London, Low, 1899.

LAURENT GOUVION, MARQUESS DE ST. CYR (1764–1830)

A French Marshal

AI IQ 105 AII IQ 115

I. *Family standing.* St. Cyr's parents were "poor and obscure." His father was a tanner, after having been a butcher; of his mother there is no specific account.

II. *Development to age 17.*

1. Interests. St. Cyr's interest was centered in the arts. He learned designing and gave himself drawing lessons.

2. Education. Although without means, his parents reared their son "with some care;" his training is reported to have included a few lessons in drawing.

3. School standing and progress. (See II 2.)

4. Friends and associates. (No record.) St. Cyr is characterized as of "a disposition not the most sociable."

5. Reading. (No record.)

6. Production and achievement. Apparently the youth was able, before he was 18, to add to the family income by his work in designing.

7. Evidences of precocity. (No record.)

AI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* At 18, St. Cyr went to Rome and Sicily to study painting; but he made no great progress there and at 20 he returned to Paris, where he gave lessons in designing, played in amateur theatricals, and lived the free life of an artist. Still undecided as to a permanent career, he entertained some thought of becoming an architect, but "when the revolution came, he embraced the cause of the revolutionists."

AII IQ 115 (Rel. coeff. of data, .11)

REFERENCES

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CHAPTER XV

CASES RATED AT AI IQ 110 TO 120

GUILIO ALBERONI (1664–1752)
A Statesman and Cardinal

AI IQ 110 AII IQ 110

(No event in the life of Alberoni before his 38th year can be dated with certainty.)

I. *Family standing.* It is said that Alberoni's parents were in the meanest circumstances; his father earned his livelihood as a gardener. No further information is available with reference to the family.

II. *Development to age 17.*

1. Interests. Alberoni's guiding principle was ambition.

2. Education. The lad was noticed by a parish priest as "forward and officious." Taken into the service of this priest, he was taught to read and write and instructed in the rudiments of Latin. Thereafter he received instruction from some friars who were pleased by his quickness and willingness.

3. School progress and standing. (No record.)

4. Friends and associates. Alberoni took pains to recommend himself to the good will of his associates, especially of those who possessed the ear of the bishop.

5. Reading. (No record.)

6. Production and achievement. Alberoni succeeded in so ingratiating himself that he was appointed to the cathedral as a ringer of bells.

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Determined upon an ecclesiastical career, Alberoni succeeded, through the influence of those who had befriended him, in obtaining minor orders, and later in gaining admission to the priesthood. Because he excelled others in vivacity and buffoonery, he was appointed a sort of steward in the home of the vice-legate at Ravenna. He became successively canon and (after the vice-legate had become bishop) preceptor to his patron's nephew.

While the events outlined can not be definitely dated, they appear to have occurred before Alberoni had reached the age of 27.

AII IQ 110 (Rel. coeff. of data, .11)

REFERENCE

Moore, George, *Lives of Cardinal Alberoni, the Duke of Ripperda, and the Marquis of Pombal*, London, Rodevell, 1814.

GEBHARD LEBERECHT VON BLÜCHER (1742–1819)

A Famous Field-Marshal in the Prussian Service

AI IQ 110 AII IQ 125

I. *Family standing.* The Blücher family belonged to the gentry of Mecklenburg. Gebhard's father, after serving as captain in the army of the Landgrave of Hesse-Cassel, lived as a country gentleman on his little ancestral estate. The Von Bülow family, of which the mother was a member, also belonged to the North German gentry.

II. *Development to age 17.*

1. Interests. The Blücher boys grew up on the family estates, living a hardy, out-of-door life; they became practiced horsemen and boatmen, skilful and courageous in adventurous and daring undertakings. Early experiences developed natural aptitudes for the manly arts and engendered that love of combat which, rather than love for a cause, is said to have actuated their early enlistment in the Swedish army.

2. Education. Gebhard Blücher appears to have had little or no formal education.

3. School progress and standing. (See II 2.)

4. Friends and associates. His elder brother was his constant companion in childhood and youth.

5. Reading. (No record.)

6. Production and achievement. At about 14 years of age Gebhard and his brother ran away to join the Swedish troops: this was an event which the parents had feared and had attempted to prevent.

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* At 17 Blücher was captured by the Prussians. A Prussian colonel was attracted by the boy's manner; he arranged for his discharge from the Swedish army, secured him a Prussian appointment as cornet, and made him his adjutant. At 18 Blücher became second-lieutenant and at 18½ first-lieutenant. He constantly engaged in adventures and duels, and as constantly he progressed in his knowledge of warfare; but because of his wild life he was passed over in promotion. After complaining of this injustice without avail, he finally resigned from the army.

It was not until his 46th year that he re-entered the army and won distinction.

AII IQ 125 (Rel. coeff. of data, .20)

REFERENCE

Varnhagen von Ense, K. A., *Biographische Denkmale*, Leipzig, Brockhaus, 1872. 3. Teil.

ROBERT LORD CLIVE (1725–1774)

A Noted English General and Statesman

AI IQ 110 AII IQ 120

I. *Family standing.* The family of the Clives was an ancient one. Robert's father was a lawyer of some ability, but "lacking in the sterner qualities which are necessary for success." His mother, to whom Robert said he owed more than to any school, was "remarkable for her talents" and "endowed with homely sense and force of character."

II. *Development to age 17.*

1. Interests. Before Robert Clive was 7 his uncle had reported of him that he was "out of measure addicted" to fighting. Boldness was his chief trait, and he was the leader of a little band in all their mischievous tricks.

2. Education. At a very early age Robert was sent to a private school in Cheshire; at 11 he attended the Market Drayton Grammar School under a skilled Latin master; at 11 or 12 he went to the Merchant Taylor's School in London; and from 13 to 17 he attended a private school at Hampstead, probably to obtain a business training.

3. School standing and progress. Macaulay's statement that "the general opinion seems to have been that poor Robert was a dunce, if not a reprobate," seems to overemphasize the significance of the lad's lack of interest in academic pursuits. It is true that in his youth Clive displayed more courage and sagacity than scholarship, but he did not fail to impress his associates with his unusual ability; and his Cheshire teacher said of him, "If that lad should live to be a man, and an opportunity be given for the exertion of his talents, few names will be greater than his."

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. Clive at the age of 3 years and 3 months was reported by an uncle to be chattering continually and always asking questions.

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After receiving at the age of 17 an appointment as "writer" for the East India Company, Clive spent ten years in India, years of fighting and adventure. Ensign at 21, he became lieutenant at 23, and captain at 25; in two or more campaigns he displayed courage and skill in leadership, and before he was 26 his reputation as a bold and capable military commander was established. In his spare hours he had read widely, and had acquired a good colloquial knowledge of the vernacular languages.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

Malcolm, Sir John, *The Life of Robert, Lord Clive*, London, Murray, 1836. (Three vols.)

Forest, Sir George, *The Life of Lord Clive*, London, Cassell, 1918.

Wilson, Sir Charles, *Lord Clive* (English Men of Action Series), London, Macmillan, 1905.

OLIVER CROMWELL (1599–1659)

A Celebrated English General and Statesman, Lord Protector of the Commonwealth

AI IQ 110 AII IQ 115

I. *Family standing.* Cromwell's family belonged to the upper middle class or gentry. The father, who had inherited a valuable estate, was "a gentleman of good sense and competent learning, of a great spirit, but without any ambition;" the mother possessed a strong character and sterling goodness.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. From an early age Cromwell attended the free town school under a Puritan schoolmaster.
3. School standing and progress. A contemporary panegyrist credits Oliver in his school days with "a quick and lively apprehension, a piercing and sagacious wit, and a solid judgment." His progress in school enabled him to enter Cambridge at 17.
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 17 Cromwell entered Cambridge, where, as a fellow-commoner of Sidney Sussex College, he is said to have acquired a knowledge of Greek and Latin under the tutorship of an excellent master. Although he did not distinguish himself, neither did he waste his time at the university. His tutor observed that he was more addicted to action than to speculation, and it is reported that he was more famous for his exercises in the fields than in the schools. The most important part of his academic education, from the point of view of its later influence, was derived from Biblical study.

After the death of his father, Cromwell, who was then 18, left college, and according to some accounts, entered upon the study of law at Lincoln's Inn. He married at 21, and lived from that time upon his portion of the modest paternal estate, until, at 29, he was elected to Parliament.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

Morley, John, *Oliver Cromwell*, New York, Century, 1902.

Firth, Charles, *Oliver Cromwell, and the Rule of the Puritans in England*, New York, Putnam, 1906.

Harrison, Frederic, *Oliver Cromwell*, London, Macmillan, 1894.

GEORGE FOX (1624–1690)

Founder of the "Society of Friends" or "Quakers"

AI IQ 110 AII IQ 120

I. *Family standing.* The parents of George Fox were humble people, but apparently not in actual poverty. The father was a weaver, and so honest that the neighbors called him "Righteous Christer." The mother, an upright woman "of the stock of the martyrs" and "accomplished above most of her degree," was especially concerned in the training of her children, and, perceiving that George was of a different temper from other boys, she was "tender and indulgent" to him.

II. *Development to age 17.*

1. Interests. The child, George Fox, refused to take part in childish and vain sports, and vain company was not to his taste; his greatest delight was in sheep, "so he was very skilful in them."

2. Education. His school education was limited: he learned to read fairly well, and to write sufficiently to convey his meaning to others.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. At some time after he had reached his 12th year Fox was apprenticed to a shoemaker who also dealt in wool and cattle. Of this experience he wrote later, "A great deal went through my hands . . . I never wronged man nor woman in all that time."

7. Evidences of precocity. George very early manifested gravity, wisdom, and piety; and it so displeased him to see older persons behaving frivolously and lightly to one another that he would say to himself, "If ever I come to be a man, surely I shall not do so, nor be so wanton." While he was in the service of the shoemaker he used in his dealings the word "verily," and it became a common saying that "if George says 'verily' there is no altering him." "When boys and rude people would laugh at me," he wrote, "I let them alone and went my way; but people had generally a love to me for my innocency and honesty."

AI IQ 110 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Grieved at the wickedness in the world about him, Fox (aged 19) left his home and friends to devote himself to a religious life. Several years of spiritual striving, perplexity, and distress followed; the young enthusiast sought the

counsel of many priests of the church, but they could give him no comfort. When he was 22, he finally found the answer to his religious questioning in what he defined as a clearer manifestation of God in his own heart. At 23 or 24 he entered, as an itinerant preacher, upon a period of ministry, expounding even then the doctrine which became the distinctive contribution of his teaching.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

Janney, Samuel M., *The Life of George Fox, with Dissertations on His Views*, Philadelphia, Friends' Book Association, 1875.
Hodgkin, Thomas, *George Fox*, London, Methuen, 1914.

CHRISTOPHER WILLIBALD GLUCK (1714–1787)

A Celebrated German Operatic Composer

AI IQ 110 AII IQ 115

I. *Family standing.* Gluck's paternal grandfather as well as his father followed the chase, as rifleman or forest ranger, in the service of some petty ruler. Of the mother's family nothing is reported.

II. *Development to age 17.*

1. Interests. At home little Gluck was treated in a manner befitting the son of a rugged forester: from his earliest years he, with his brothers, accompanied their father barefooted through the forest in the middle of winter weighted down with hunting implements. It was not until he entered school that Gluck learned music, but when once the opportunity offered, he soon acquired facility with many musical instruments, and before he was 18 he had resolved upon one thing—"a musician he would be and nothing else."

2. Education. In his earliest years the boy was left to pick up what education he could in the kitchen and the fields. At 12 he was sent to a Jesuit school where, the priests instructed him in school lore, and in playing the violin and organ; he also sang in the church choir and was taught the clavier and 'cello.

3. School standing and progress. (See II 2 and 6.)

4. Friends and associates. (See II 1 and 2.)

5. Reading. (No record.)

6. Production or achievement. At his father's death the boy was left entirely to his own resources; but as he was "already master of several instruments, he was able to gain a living for himself at Prague by singing and playing at public concerts and private entertainments." Difficult though it was, this life did not deter the youth from his resolve to become a musician.

7. Evidences of precocity. (No further record.)

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After several strenuous years, Gluck, at 22, migrated to Vienna, where, "thanks to his own energy, self-

reliance, and study of human nature, he was always successful in securing wealthy friends." Among these was Prince Melzi, who, after giving the youth a place in his private band, took him to Milan and placed him under the instruction of Sammartini, a learned theorist. When Gluck was 27 his first opera appeared, and won immediate recognition and success.

AII IQ 115 (Rel. coeff. of data, .20)

REFERENCES

Sharp, R. F., "Gluck" (in *Makers of Music*, New York, Scribners, 1901, pp. 48–62).
Bourne, C. E., "Gluck" (in *The Great Composers*, London, Swann, 1908, pp. 57–74).
Dole, Nathan H., "Gluck" (in *A Score of Famous Composers*, New York, Crowell, 1891, pp. 118–146).

ULYSSES SIMPSON GRANT (1822–1885)

A Celebrated American General—Eighteenth President of the United States

AI IQ 110 AII IQ 125

I. *Family standing.* Grant's father, a prosperous tanner of Scotch pioneering blood, had a strong thirst for education; he read and studied constantly, was something of a debater, and a not-infrequent contributor to Western newspapers. He is reported also to have been the first mayor of Georgetown, Ohio. The mother was a woman of strong character and sound common sense; and she too was of pioneer stock.

II. *Development to age 17.*

1. Interests. From his earliest childhood Grant had a passion for horses, and before he was 8 he began to drive about alone; at 10 he drove forty miles from Georgetown to Cincinnati, and returning brought back a load of passengers. He was fond of undertaking and executing a given task on his own initiative and according to his own ideas. He was interested in agricultural pursuits, but detested tanning (his father's occupation). He was devoted to country sports and proficient in them. Whether or not he cared for public speaking is not told, but records show that at 14 he took part in five school debates.

2. Education. From the age of 5 or 6 to 17 Grant attended the Georgetown village school regularly, except for one winter in Kentucky and one in Ripley, Ohio; he progressed through the three R's.

3. School standing and progress. (No record.)

4. Friends and associates. Grant was a favorite with the smaller boys of the village, who looked up to him as a sort of protector.

5. Reading. (No record.)

6. Production and achievement. A capacity for organization and management appeared in him at an early age, so that at 8 he was sent by his father to purchase a horse. This particular transaction, however, he managed poorly enough. In early youth his principal achievement as well as his chief interest was in horsemanship,

"Whatever he undertook to ride, he rode," was his father's comment on this ability. At the age of 10 young Grant accepted the challenge of a circus ring-master, and managed to stick on a horse that was trained to throw its rider. From his 12th year when he learned to plow he did all the farm work that required horses.

At 15 Grant worked in his father's tan-yard, directing other boys employed there.

7. Evidences of precocity. (None except in farm and business management, as indicated.)

AI IQ 110 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Grant, although not particularly eager for the honor, received, through the influence of his father, an appointment to West Point. There he did fairly good work in mathematics, a subject that was "easy" for him; he read widely, although in books unrelated to the course of study; and he was the most accomplished horseman in the school. In his third year he was promoted to the rank of sergeant, but in his fourth he returned to his former rank of private. He finally graduated as 21st in a class of 39, after maintaining through the four years a rank near 150 in a corps numbering about 225.

From the age of 19 to 22 Grant served as brevet second-lieutenant. He carried on during this period a regular program of self-directed study in preparation for the teaching of mathematics, his intention being to resign shortly from the military service. Although a pulmonary weakness threatened his health it did not dampen his zeal for work, and at 23 he was ready to be appointed full second-lieutenant. At 24 he was engaged in active military service for the first time, and during the same year won his initial commendation for successfully effecting a hazardous mission. As the war continued, he distinguished himself on numerous occasions, attracted the attention of his superiors, and after a special recommendation for gallantry was advanced, at 25, to a first-lieutenancy.

AII IQ 125 (Rel. coeff. of data, .75)

REFERENCES

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WILLIAM HOGARTH (1697–1764)

A Celebrated English Painter and Engraver

AI IQ 110 AII IQ 115

I. *Family standing.* Hogarth's father was "a man of exceptional attainments," but impractical in his business schemes. He kept

school for a time and thereafter became a corrector for the press; he was also the author of a number of laborious tomes and the compiler of a Latin dictionary which, however, he never published. Of the mother's family nothing is known.

II. *Development to age 17.*

1. Interests. Hogarth early discovered that he had a good eye and a fondness for drawing, and after interest in a neighboring painter had diverted his attention from play, he was engaged at every possible moment in making drawings or sketches.

2. Education. Hogarth's academic education was clearly neither intensive nor extensive; in fact, his school essays were said to have been more remarkable for the ornaments which adorned them than for their content. After a limited education, and doubtless actuated by the thought that he might thus avoid the precarious career of his educated father, Hogarth withdrew from school to learn a trade.

3. School standing and progress. The artist later remarked of his standing at school that "blockheads with better memories" had surpassed him.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. After leaving school Hogarth was apprenticed at his own request to a "silver-plate engraver;" but long before the completion of his apprenticeship (when he was 20) he had begun to crave something better.

7. Evidences of precocity. (No specific record. See II 2.)

AI IQ 110 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* During his service with the silver-plate engraver Hogarth acquired skill in copying designs. At 20 he evolved a scheme for developing his memory for design, the first step in his course of self-training in composition. At 23 he set up for himself as engraver and produced numerous plates, frontispieces, etc.; the first of these published on his own account appeared when he was 27. He first became known in his profession by a work published in his 30th year.

AII IQ 115 (Rel. coeff. of data, .11)

REFERENCES

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Thackeray, William M., "Hogarth, Smollett, and Fielding" (in *The English Humorists of the Eighteenth Century*, Lecture V, Leipzig, Tauchnitz, 1853, pp. 212–259).

JOHN HUNTER (1728–1793)

A Noted British Surgeon, Anatomist, and Psychologist

AI IQ 110 AII IQ 130

1. *Family standing.* The Hunters were an ancient family, owners of an old manor near Glasgow. John Hunter's father, a very frugal man,

the owner of an estate, had three sons who became physicians; of these, two achieved distinction.

II. *Development to age 17.*

1. Interests. John was good at games and an observer of nature from his earliest years; he had an aversion to books, but he wanted to know all about the clouds and grasses, and why the leaves changed color in the autumn. He watched the ants, bees, birds, tadpoles, and caddis worms, and he pestered people with questions about seemingly trivial things. At a very early age his interests were clearly defined and he would do nothing but what he liked.

2. Education. Hunter learned to read late and with difficulty; at Kilbride Latin School, which he attended until his father's death, he made no progress at all; in fact he is said to have been at this time impenetrable to everything in the form of book-learning. A little later, however, he exhibited considerable ability as a student of the classics.

3. School standing and progress. (See II 2.)

4. Friendships and associates. (No record.)

5. Reading. He "hated books."

6. Production and achievement. (No record.) He was employed for a time in his brother-in-law's timber yard.

7. Evidences of precocity. Great as was his aversion to formal studies Hunter was considered by no means a stupid boy; and although he retained the habit of childish crying long past the age when such a thing is generally tolerated, when occasion required he was bold and intrepid; indeed, at 12 years he displayed his courage by attacking a practical joker disguised as the devil when his grown companions were petrified with fear.

AI IQ 110 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 20 Hunter suddenly awoke from the indifference that had characterized him up to that time. He demanded permission of his surgeon brother to be allowed to assist in his laboratory, and there, working long hours at anatomy, he soon won great praise for his dissections. At 21 he attended at Chelsea Hospital under Cheselden, the most celebrated surgeon of the day, and from time to time during operations he acted as surgeon's pupil at another hospital. At 24 he made, with his brother William, what they claimed as a new discovery in anatomy. At 25 his brother, wishing to improve his manners, entered him as gentleman commoner at St. Mary's Hall, Oxford. Of the latter plan Hunter stated in characteristic phrase, "These schemes I cracked like so many vermin."

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

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ANDREW JACKSON (1767–1845)

Seventh President of the United States

AI IQ 110 AII IQ 130

I. *Family standing.* Jackson's father was an Irish immigrant, an impecunious frontiersman. The mother, although a poor man's daughter, cherished a wish that her only surviving son, Andrew, might receive a liberal education and so become a clergyman.

II. *Development to age 17.*

1. Interests. Andrew was fond of athletics and proficient in various sports. At 14 he became a fighter; at 15, when first left to his own resources, he is reported to have "dissipated" a little in gambling, races, drinking, and cock fights.

2. Education. After attending an old fashioned school where he learned the rudiments, he entered an academy where languages were added to the common school curriculum and young men were prepared for college. At 13 he learned practical first aid by assisting his mother in tending the injured after a raid.

3. School standing and progress. He was remembered to have made "commendable progress" in school.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. Jackson gave early evidence of unusual initiative: when the family were forced to flee from their North Carolina home, he paid his own expenses by doing chores; at 14 after being taken prisoner in guerrilla warfare he enabled a neighbor to escape; he secured better treatment for the other prisoners through remonstrance with the guard; at 16 or 17 he is reported to have taught school in South Carolina.

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 or 18 Jackson commenced the study of law with an eminent attorney in North Carolina, being at this time a merry fellow as well as a rising young clerk at law. At 20 he was licensed to practice, and from his 21st to his 26th year he exercised his license with unusual success on the Tennessee frontier. After holding an appointment as public prosecutor he was named United States District Attorney at 24. He married soon after the latter appointment, and was elected trustee of Davidson Academy the same year.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

Parton, James, *Life of Andrew Jackson,* Boston, Houghton, 1887–88. (Three vols.)

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Sumner, William Graham, *Andrew Jackson as a Public Man,* Boston, Houghton, 1899.

Walker, Alexander, *Life of Andrew Jackson,* New York, Derby, 1858.

CORNELIS JANSEN (CORNELIUS JANSENIUS) (1585–1638)

A Dutch Roman-Catholic Theologian, Founder of the Sect Named After Him

AI IQ 110 AII IQ 140

I. *Family standing.* Jansen's parents were peasants of a grade so humble as not to be distinguished by a surname.

II. *Development to age 17.*

1. Interests. There is no record of these beyond the mention of his inclination for study.

2. Education. No account is preserved of Jansen's early education, but before he was 17 he was sent to the University of Utrecht, where in the College of St. Jerome he studied the humanities under Catholic teachers, and rhetoric and dialectics under Protestant instruction. However, his Catholicism was so well grounded that he was not led from it even by mingling with Protestants.

3. School standing and progress. When the poverty of his parents forced him to leave the university (no date given), Jansen had already shown his superiority and convinced his teachers of the probability of his future success.

4. Friendships and associates. Zilly, a fellow student at Utrecht, was a dear friend with whom on his return to college Jansen shared books, study, and recreation.

5. Reading. (No record.)

6. Production and achievement. No record has been found except of his employment in a carpenter's shop, where sometime before the age of 17, he acquired funds sufficient to continue his education.

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 17 Jansen was sent to the Catholic University of Louvain, where he acted as servant to one of the teachers, and where he studied with such assiduity and success as to be publicly declared the first student of his year. At the age of 19, when he and an aristocratic fellow-student were rivals for first honors, Jansen, probably supported as was customary, by the fists of his colleagues, and more certainly by his reputation among the professors, was awarded the prize. The Jesuits claim that it was at this time that he applied for admission to their order and was refused; at any rate an old professor, Janson, who hated Jesuits, made much of him. A little later Jansen went to Paris and there became the friend of the great St. Cyran who secured him a tutorship whereby he might defray his expenses in the city, thus enabling the two eager scholars to pursue their studies together. But even the tutorship proved too great a distraction, and so, when Jansen was 26, he and St. Cyran left Paris to continue their studies in the country undisturbed.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCES

Beard, Chas., *Port Royal,* London, Longman, 1861. Vol. I.
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GEORGE MONK (1608–1670)

An English General

AI IQ 110 AII IQ 120

I. *Family standing.* George Monk's father, Sir Thomas Monk, came of a most ancient and honorable Devonshire family, whose estate, however, was badly run down at the time of Sir Thomas' tenure. George's mother was the daughter of Sir George Smith, also of Devonshire.

II. *Development to age 17.*

1. Interests. Monk had inclinations toward a military career, although it was chance that finally cast him into the army. Having soundly beaten an officer of the law, who, after accepting a bribe to refrain, had publicly arrested Sir Thomas for debt, young George, at the age of 16, had to flee from the consequences. He joined the expedition against Cadiz as a volunteer on board ship, and upon the failure of the expedition enlisted under the Duke of Buckingham in a campaign against the Isle de Rhé.

2. Education. Monk had very little education, spelled badly, and expressed himself awkwardly, but his letters were always clear and to the point.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* At 18 George Monk distinguished himself by successfully executing a state errand under great hazard to his life. At 20 he became a mercenary soldier in Holland, superior to his comrades in talent, but similar in his tastes. After several years of service, he obtained command of a company of volunteers. Although his men were ill-disposed to strict discipline and did not well understand their profession, Monk soon gained ascendency over them and won, for himself, both love and obedience.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCE

Guizot, F. P. G., *Monk; or the Fall of the Republic and the Restoration of the Monarchy in England, in 1660,* (Tr. Scoble), London, Bohn, 1851.

BARTOLOMÉ ESTEBAN MURILLO (1617–1682)

A Celebrated Spanish Painter, Chiefly of Religious Subjects

AI IQ 110 AII IQ 120

I. *Family standing.* Murillo's parents were humble toilers living in the Jewish quarter of Seville. While the mother sold fruit, the boy ran wild in the streets. The family are said to have been opulent at one period; but during Murillo's childhood they were in the most reduced circumstances. His uncle, a physician of very moderate means, adopted the boy (aged 10) after the death of his parents.

II. *Development to age 17.*

1. Interests. (None other than painting recorded.)

2. Education. Of Murillo's early education nothing is known; but when the boy was 10, the uncle who had adopted him, seeing his desire to paint and his facility with the pen, used his small savings to apprentice him to a distant relative, a clever painter, Juan del Castillo. This man had neither genius nor enthusiasm, but he could turn out pictures by the score, and from him Murillo learned the use of the brush, something about composition, and the grinding and mixing of colors.

3. School standing and progress. (No record.)

4. Friends and associates. (No record except of members of the family and a teacher.)

5. Reading. (No record.)

6. Production and achievement. Tales are told of Murillo's very early artistic production; indeed, his first authenticated work, the "Virgin with St. Francis," was painted when he was 15, but it is said to be "hard and flat" and to "give little or no promise of the artist's future excellence."

7. Evidences of precocity. Murillo probably began to draw or paint at a very early age, but no work is preserved from before his 16th year.

AI IQ 110 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* After a period of apprenticeship under his first teacher, Murillo, at 22, was thrown upon his own resources. He resorted to the public fairs where his wares commanded an extensive market and he produced innumerable pictures. At 24 he came under the influence of a student of Dutch art. Inspired by this artist's tales of travel, he set out on foot for Madrid, where as an impoverished art student, he nevertheless soon won the interest and active patronage of Velasquez, at that time court painter. Murillo remained three years in the capital accumulating both wealth and experience.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCES

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Williamson, George C., *Murillo,* London, Bell, 1902.

Lafond, Paul, *Murillo,* Paris, Laurens, [1908?]
Curtis, Charles B., *Velasquez and Murillo,* London, Sampson Low, 1883.
Sweetser, M. F., "Murillo" (in *Artist Biographies,* Boston, Houghton, 1917? Vol. 7).

JEAN VICTOR MARIE MOREAU (1763–1813)

A French General

AI IQ 110 AII IQ 125

I. *Family standing.* Moreau's father was an advocate in good practice, who insisted on his son's attendance at the university in preparation for a legal career.

II. *Development to age 17.* (No record.)

AI IQ 110 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* Moreau wanted to enter the army and at the age of 17 he attempted to do so, but was prevented by his father, who sent him to the university at Rennes. Having no inclination for the law the young man took no degree, but he completed his course in the first rank among the law students. At the university he reveled in the freedom of a student's life, became the leader of the academic youth, and formed his associates into a sort of army which he commanded. At 25 he organized the students and other young men of Rennes in defense of the Parliament, and in opposition to the reforms of Cardinal Brienne; and in daily frays which lasted five months he showed himself very clever and cautious.

AII IQ 125 (Rel. coeff. of data, .20)

REFERENCE

Jochmus, Carl, *General Moreau,* Berlin, 1814.

MICHEL NEY, DUC D'ELCHINGEN AND PRINCE DE LA MOSKWA (1769–1815)

A Celebrated French Marshal

AI IQ 110 AII IQ 120

I. *Family standing.* Ney's father was a tunneler, or perhaps a cooper, in comfortable circumstances, who had served as a soldier in the Seven Years' War. Of the mother's family no record has been found.

II. *Development to age 17.*

1. Interests. Young Ney showed an early taste for the activity of a career at arms. Diligent in school, he was always restless in his free hours; he would frequently organize and drill his school companions. Because of the slight opportunity for advancement that the army offered to a working man's son, the elder Ney was opposed to Michel's military aspirations, and encouraged him to take up a civil occupation. This he did; but as he became in turn notary, *procureur,*

miner, and mine superintendent, the burning wish to follow a military career never lessened its strength.

2. Education. With the other children of his age, Ney attended the Augustinian College until his 16th year.

3. School standing and progress. (No record beyond the statement of his diligence.)

4. Friends and associates. Ney grew up in the military atmosphere of a garrison town.

5. Reading. (No record.)

6. Production and achievement. Before he had reached the age of 15 Ney was apprenticed to a notary, but he found the office so irksome that he soon gave it up and became a *procureur de roi.* In his 16th year his father sent him to work in the mines, and in his new occupation the boy enjoyed his work only until he had mastered its detail. At 16, he was "very able, exact, and active, and already noted for his zeal;" and it was no doubt because of these qualities that he was offered a position, as superintendent of the forges of Saleck, which he held thereafter for two years.

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* After two years at Saleck, Ney, now 18, could no longer resist the strong inclination that had long been drawing him to enter the army; and so against the wishes of his family, he enlisted with the Hussars. Soon he began to attract the attention of his superiors by his application and his ability (he excelled in all forms of bodily exercise), and because of his exceptional handwriting he was appointed quartermaster. At 22 he was made a brigadier and a little later he fought his first duel, sustaining the honor of his regiment. After winning rapid promotion in his 24th year he was called, at 25, as division-general, to become the aide-de-camp of General Coland, receiving on this occasion a certificate of bravery signed by the officers and men of his regiment. After further successful and distinguished service, and before the end of the same year, Ney was made *général chef de batailon.*

AII IQ 120 (Rel. coeff. of data, .43)

REFERENCES

Mémoires du Marechal Ney, Publiés par sa famille, Bruxelles, Hauman, 1833. (Deux tomes.)

La Bédoyère, Georges Comte de, *Le Marechal Ney,* Paris, Calmann-Lévy, 1901.

Bonnal, General H., *La Vie Militaire du Marechal Ney,* Vol. I.

GIOVANNI PIERLUIGI DA PALESTRINA (1525–1594)

A Celebrated Italian Musician, Surnamed "Princeps Musicae" (Prince of Music)

AI IQ 110 AII IQ 120

I. *Family standing.* Giovanni's parents lived in the village of Palestrina where they possessed a house, vineyard, chestnut grove, and

other property. A brother of the celebrated composer was "lettered" and became a musician by profession.

II. *Development to age 17.*

1. Interests. According to the story, Giovanni often went to Rome and one day, passing Santa Maria Maggiore, singing as he went, he was heard by the choirmaster, who, "struck by the beauty of the childish voice as well as by the manner of singing," took possession of his discovery for the choir.

2. Education. It is recorded that Palestrina, at 11, was one of the six selected choir boys of Santa Maria Maggiore who, in the charge of the chaplain, Giacomo Coppola, were instructed in music by the choirmaster. The biographer infers from Giovanni's age that he remained in the choir long enough to be instructed, in 1540, by the great Fermin le Bel, appointed chaplain and choirmaster in that year. The records of the village show that the young musician was thought worthy of mention as early as his 15th year.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 110 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* At 18 Palestrina was appointed organist and choirmaster at the Cathedral of S. Agapito in his native town; and there he served as "choirmaster on all occasions, organist on festival days, and instructor of canons and boys." Before a period of seven years' service at S. Agapito was at an end, the young musician married Lucrezia de Goris, "a virtuous maiden who brought him a respectable dowry." In 1550 the Bishop of Palestrina became Pope Julius III, and it was doubtless because of his influence that, in the following year, Palestrina's previously granted life appointment to the Cathedral of S. Agapito was annulled so that he might accept the important office of "master of the boys" in the Julian Choir at St. Peter's.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCES

Pyne, Zoe K., *Palestrina, His Life and Times*, London, Lane, 1922.

Dole, Nathan Haskell, "Palestrina" (in *Famous Composers*, New York, Crowell, 1902).

RAPHAEL SANZIO (1483–1520)

A Celebrated Italian Painter

AI IQ 110 AII IQ 150

I. *Family standing.* Raphael came of a "lowly race"; his father, who kept a store as representative of a general dealer or goldsmith, was a good painter and also something of a poet; his mother was the daughter of a thriving village merchant.

II. *Development to age 17.*

1. Interests. From his earliest childhood, art was Raphael's all-absorbing interest.

2. Education. It is probable that the boy received his first instruction in painting at an early age from his father; but while he studied the elements of his art, reading and writing were not entirely neglected. It is said that Raphael accompanied his father to Cagli and assisted there in the painting of frescoes for the Church of the Dominicans until the death of his parent when the son was 11. There is some slight evidence that Raphael learned painting first from Signorelli and Timoteo Viti, and not from his own father, in which case his art instruction began after he was 11 years old. As early as his 13th year, or perhaps as late as his 17th, Raphael went to Perugia, where he was placed under the instruction of the great master, Perugino. In addition to his study of art, the boy is said to have received instruction in architecture from a famous Perugian goldsmith.

3. School standing and progress. There is no record of Raphael's having attended common school, or of his having received any general training in the common branches other than that imparted by his father.

4. Friends and associates. Before he was 17 Raphael was associated with a number of the foremost artists of the time; he attached himself warmly to both teachers and fellow pupils.

5. Reading. (No record.)

6. Production and achievement. According to tradition Raphael's earliest paintings date from his 11th year; but, although it is clear from his later productions that he did produce at an early age, there is no certain evidence regarding his work before his 20th or 21st year. It is said that under Perugino's tutelage young Raphael soon surpassed all his fellow students; and extant sketches and copies after Perugino, probably the work of the pupil at 16 or perhaps earlier, are corroborative of this estimate. Raphael began early in his apprenticeship to assist Perugino in important works and became a close student of his master's technique. In Urbino he sketched copies of the Flemish works in the palace, while he probably assisted in Perugino's Cambio frescoes the same year.

7. Evidences of precocity. (See II 6.)

AI IQ 110 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Between the ages of 17 and 20 Raphael had received and filled his first orders for independent work. At this period he executed perhaps two dozen pictures in the style of his master, Perugino. When he was 21, the year that he left Perugino's studio, he painted his first famous picture "The Marriage of the Virgin," followed soon by the "Granduca Madonna." Soon after he was invited to assist the distinguished artist Pinturicchio; and then, having heard of Leonardo, he determined to go to Florence to learn from him. The next four years, broken by a prolonged visit to

Perugia, were spent in Florence, where the youth was received as an equal by the great artists assembled there. One after another, great masterpieces came from his brush.

Raphael had exhibited true genius when he was 21; at 25, recognized as the greatest painter of his time, he was called to join the brilliant group at the Papal Court in Rome.

AII IQ 150 (Rel. coeff. of data, .43)

REFERENCES

Crowe, J. A., and Cavalcaselle, J. B., *Raphael, His Life and Works*, London, Murray, 1882. (Two vols.)

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Munz, Eugène, *Raphael, His Life, Works, and Times* (Tr. W. Armstrong), London, Chapman, 1882.

Perkins, Charles C., *Raphael and Michelangelo*, Boston, Osgood, 1878.

REMBRANDT HERMANZOON VAN RIJN (OR RYN) (1606–1669)

A Celebrated Dutch Painter and Etcher, the Chief Member of the Dutch School of Painting

AI IQ 110 AII IQ 135

I. *Family standing.* Rembrandt's father, a miller, was an honored and respected citizen of Leyden; his mother was the daughter of a baker of the same city. The family sustained a comfortable position in the lower middle class and owned considerable property, including several houses and a burial-place in the Church of St. Peter.

II. *Development to age 17.*

1. Interests. When young Rembrandt was 14 or 15, "by what means we know not, the art craving was fully aroused, and his parents' ambitious scheme for his serving the City and Republic was as nothing beside his own irresistible desire to express himself in form and color."

2. Education. He exhibited little affection for reading and writing, subjects which he had probably learned, not too well, at home; but "we may be sure that his religious instruction was the object of his mother's special care, and that she strove to instil into her son the faith and moral principles that formed her own rule of life." In his later years Rembrandt often painted his mother, and in his pictures she usually appears with the Bible in her hand or close beside her; for the passages she had read to him and the stories she recounted from her favorite book had "made a deep and vivid impression on the child, and in later life he sought subjects for his works mainly in the sacred writings."

At 14 or 15 Rembrandt studied Latin literature for a short time at the University of Leyden, whither he was sent by his parents, so that he might prepare to serve the State by his knowledge. After

leaving the university Rembrandt entered the studio of the artist Van Swanenburch, where, however, during his three years' apprenticeship he learned little beside the first principles of his art. Before his 18th year, he had entered Lastman's studio in Amsterdam.

3. School standing and progress. Rembrandt proved but an unwilling scholar, for "the lines of Virgil and Ovid were lifeless to him in comparison with those of Lucas and Leyden," and so his parents finally "gave up the effort to make a statesman of him, and consented to apprentice him . . . to a painter." "His vocation was so pronounced that directly he was permitted to give up all his time to his art he made astonishing progress."

4. Friends and associates. In Lastman's house Rembrandt was doubtless brought into contact with famous artists and other persons of distinction.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (See II 3.)

AI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After a few months with Lastman, Rembrandt returned at the age of 18 to Leyden, determined "to study and practice painting alone in his own fashion." His first extant work, "St. Paul in Prison," which appeared when he was 21, is, compared with his later productions, "a mediocre work," but it none the less reveals certain evidences of a great artist's powers of careful observation. A second picture belongs to the same year. At 22 Rembrandt was executing works of remarkable excellence: the Gotha portrait of himself, two other well known paintings, many etchings, and a tiny picture on copper probably date from this year; and the young artist had become a master painter, for it was then that he took his first pupil. "Inspired by a passionate devotion to his art, he studied with such ardor that . . . 'he never left his father's house as long as daylight lasted.'" Between his 23rd and his 27th year he showed rapid development in the quality of his art, while, in quantity, the work he produced is remarkable. In addition to numerous paintings and engravings, he executed some 84 etchings, including no less than twenty etched portraits of himself. At 25 Rembrandt went to live in Amsterdam, where his work was attracting much attention, and now "at one bound he leaped into the position of first portrait painter of the city."

AII IQ 135 (Rel. coeff. of data, .43)

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ALBRECHT EUSEBIUS VON WALLENSTEIN (OR WALDSTEIN OR WALDENSTEIN) (1583–1634)

Duke of Friedland, Mecklenburg, and Sagan
A Celebrated Austrian General

AI IQ 110 AII IQ 115

I. *Family standing.* Wallenstein's family were of German origin and had for generations been active in the political development of Bohemia. "Though noble and numerous, they appear to have been poor." The father received from his wife, a Baroness of Smiricky, all the moderate fortune he possessed.

II. *Development to age 17.*

1. Interests. At 7 and perhaps later also, the stubborn little Albrecht "was averse to study, of ungovernable temper, and fond only of military games, in which he always assumed the command over his companions."

2. Education. "As both parents were Protestants, the young Albrecht received the first rudiments of religious instruction in the same faith." But religious instruction did not produce docility in behavior; the boy became early quite unmanageable, and his father, finding his own harsh methods unavailing, sent his son to the Princes' School at Goldberg, where he was under the severe hand of Cantor Fechner. A little later, and after the death of both his parents, a maternal uncle sent him to the school of the Bohemian Brothers' Society, patronized by the aristocracy of that region. It is stated by some authorities that the boy (aged 12) was placed in the College of the Nobles, established by the Society of Jesus at Olmütz, and that at 16 he entered the University of Altdorf, remaining there for seven months.

3. School standing and progress. At Goldberg, "wherever there was a wild prank to be played, our Albrecht was in the lead; games of war and rough play occupied him more than his books, and his teachers were finally forced to send the unmanageable youth back to his parents." But, alas, his behavior was no better at his next school, and here he earned the soubriquet *der Tolle,* "the mad fellow." Finally, at Olmütz his teachers discovered his talents, and, being themselves ardent believers, converted him to the Catholic Church—an easy enough task in his case, since Albrecht was glad thus to win release from the study of Latin. His rowdy propensities were again in evidence during his attendance at the University of Altdorf, for after serving a short term in jail for damaging property he was finally threatened with expulsion from the city as a result of his connivance in the escape of a friend who had committed a murder. Though at his petition he was reinstated, he soon left the city and started out (aged 16) on his travels.

4. Friends and associates. An indulgent tutor in the school at Olmütz so won the boy's admiration that he afterward spoke of the good Jesuit as the real founder of his fortune. Another priest, Father Pachta, was a friend of his early youth, while a wealthy young noble-

man, Lord Liek of Riesenstein was the companion with whom he set out at the age of 16.

5. Reading. (No record.)

6. Production or achievement. (No record.)

7. Evidences of precocity. When his mother punished him Albrecht (aged 7) cried out: "If I were only a prince, so I would not have to be punished!" On another occasion being sharply rebuked by an uncle for speaking more in the tone of a prince than of a gentleman's son, he replied with great fire and quickness: "If I am not a prince, I may yet live to become one."

AI IQ 110 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* The period from his 17th to his 22nd year Wallenstein spent in travel through Europe with a considerable sojourn in Italy, where he devoted much attention to the study of military arts and astrology. Returning, he entered the army in a humble capacity at the age of 22, received shortly, at the siege of Grau, the command of a troop of infantry, and within the year was promoted major. A few months later he had settled down on his estate in Moravia, and here he continued to live an uneventful life for some ten years.

AII IQ 115 (Rel. coeff. of data, .11)

REFERENCES

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PIERRE JEAN DE BÉRANGER (1780–1857)

A French Lyric Poet

AI IQ 115 AII IQ 130

I. *Family standing.* The grandfather and father of Béranger, although they both aspired to be thought of noble blood, were really of very humble station: the former was an innkeeper; and the latter, after some years of service as a lawyer's clerk in the provinces, became, first, a bookkeeper in a Paris grocery store, and later a small banker. Béranger's mother, also of lowly extraction, worked in a shop before her marriage, and afterward, when deserted by her husband, supported herself by dressmaking. Her father (a tailor) and her mother appear to have had considerable fondness for reading.

II. *Development to age 17.*

1. Interests. As a child, Béranger cared little for school. His greatest delight was "to stay noiselessly in a corner, making cut-

work designs, or small baskets from cherry pits," an occupation which engaged his attention for days and aroused the admiration of his relatives. He showed considerable talent for drawing, but this was not developed owing to the expense that training would involve. Growing up in the midst of the Revolution, the boy acquired a lively interest in politics, and at 12 he became the president and official speechmaker of a Republican Club, composed of school boys.

At the age of 15 young Béranger was given a position in a bank which his father had started, and here he became "a very clever financier."

2. Education. Béranger's education was slow and irregular. From the age of 3 until he was 9 he lived chiefly with his maternal grandparents, and as he was sickly and spoiled, he was not sent to school until he had passed the usual age for entrance. He says: "I never gained a love for school." On occasional visits to his mother in Paris he delighted in the theatres, the balls, and the parties in the country to which she took him. In the city, as he says, "I listened much and said little. I learned many things but I did not learn to read."

The father, who had been absent from home for some time, reappeared when the boy was 9 and arranged to send his son to a boarding-school in the suburbs. "There I saw the taking of the Bastille from the roof of the house. It is practically the only thing I learned there, for I do not recall that anyone ever gave me any lessons in reading and writing. . . . How did I learn to read? I have never been able to decide." Before the end of a year the boy was removed from school and sent to live at Peronne with his paternal aunt, who taught him to read from the works of Racine and Voltaire, whom she greatly admired. By a system of "practical application" she taught him morality and citizenship, and she gave him religious instruction; but the last named is said to have had no great effect. Later, an old schoolmaster taught the boy to write and calculate with greater precision than he had been able to acquire by himself.

In his 13th year the boy was enrolled for a short time in a free primary school organized on the principles of Rousseau. "This," says Béranger, "completed my studies. My aunt had not the means to give me more education and besides the college of Peronne had been closed." At 13 he was put to work in a publishing house, where he remained two years.

3. School standing and progress. According to his own account, Béranger never excelled in his studies. He took no prizes, except one, and that was for good conduct.

4. Friends and associates. The child passed his early years boarding about with various relatives. In his 10th year he associated at school with two brothers named Grammont, the younger his dearest friend, the elder his most implacable enemy. At the publishing house where he was apprenticed, aged 13 and 14, the publisher's son became his friend, and it was he who taught the future poet the rules of versification.

5. Reading. At the age of 9 Béranger had already read the *Henriade* and a translation by Mirabaud of the *Jerusalem Delivered.* The latter had been given him by an uncle, who hoped that he might from this intellectual stimulus, acquire a taste for books. Béranger wrote of the period before he was 9, "although I knew almost by heart two epic poems, I knew how to read only with my eyes, and could not join two syllables aloud, as I had never been taught the value of consonants." (See also II 2.)

6. Production and achievement. At 12 Béranger began to write poetry, but as he had never been taught the principles of versification, he simply "traced rhymed lines, some good, others bad, but of the same length, thanks to two pencilled lines drawn from the top to the bottom of the page."

7. Evidences of precocity. In his childhood Béranger was in some respects advanced, in others strangely backward. When, at 11, he was being prepared for his first communion, he was unable to learn by heart the Latin of the church services, and the priest, in spite of the rules, had to let him say his prayers in French. On one occasion, attempting to serve as altar boy, he mixed the responses, and paid so little attention to what he was doing that the priest dismissed him in disgust. At the same time, he possessed from a very early age great manual dexterity. Before he was 9 he had memorized two long epic poems; and a little later he became intensely interested in politics. At 15 he went to work in his father's bank and was soon noted for his skill in business. "The science of calculation developed suddenly in me," he wrote, "without my learning the regular rules. In all my work I have invented my own procedure and I got so I could do calculations in my head with marvelous rapidity." (See also II 1 and 2.)

AI IQ 115 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* From the age of 17 Béranger bore almost the whole responsibility of the family business. At this time his father predicted for him a great financial career, for he had already achieved phenomenal success. But when the general collapse of the year 1798 occurred, the business failed. Young Béranger sought consolation in poetry: he studied versification, language, and poetical forms; he outlined an epic poem; in his father's circulating library he devoured the works of the newer writers. "To live alone, to write verses at my ease, that seemed happiness to me!" Before he was 24 he had produced numerous political satires, odes, idylls, comedies, and epic poems. Brilliant young men of literary and artistic talents had become his associates. Lucien Bonaparte, to whom he had addressed two poems, became interested in him, obtained a pension for him, and encouraged him in his writing. At 25, having secured a modest employment which satisfied his desire to assist his family, Béranger was free to devote a large part of his time to his literary interests and activities. But it was not until he was 32 that he began the song writing which brought him immediate fame.

AII IQ 130 (Rel. coeff. of data, .53)

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JEAN BAPTISTE (JULES) BERNADOTTE (1763–1844) (CHARLES XIV, KING OF SWEDEN)

King of Sweden and Norway 1818–44, French General, etc.

AI IQ 115 AII IQ 120

I. *Family standing.* Bernadotte's father, although descended from the lesser nobility, was by profession a lawyer, of high standing in his community. The mother, not herself of noble birth, was connected with the nobility of the neighborhood.

II. *Development to age 17.*

1. Interests. From the first, Bernadotte manifested more interest in an active, adventurous life than in the law studies for which his father had destined him. As a boy, his favorite resort was the post-house, and his chief delight was to be allowed to ride the post-horses as postillion. It is not, however, to be inferred from this that he showed any tendency to participate in low life, for his character was manly, brave, and combative.

2. Education. According to a well-founded tradition, Bernadotte was educated by the Benedictines at the Lycée at Pau. At the age of 14 he became a law student and apprentice, with the intention of employing his natural readiness, presence of mind, and spontaneous eloquence in following his father's profession. The death of the latter when Bernadotte was 17 frustrated this plan.

3. School standing and progress. (No specific record.)

4. Friends and associates. No specific record is preserved of friends and associates other than members of his family. (But see II 1.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No specific record.)

AI IQ 115 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Fearing to become a burden to his family if he continued to pursue the law course he had outlined, Bernadotte, without his mother's knowledge, enlisted in the army, and entered upon a period of service on the Mediterranean coast. After service in various garrisons, he received, at 19, his first promotion to the rank of grenadier. During a prolonged furlough and visit at home, his family attempted to persuade him to give up a career of arms, but in vain; for Bernadotte returned at 22 to his regiment, and before he was 26 had been promoted successively to the ranks of corporal, sergeant, quartermaster, and finally sergeant-major. As a commoner he was not eligible to a commission, but none the less

he enjoyed the friendship of the officers, as he had already won their praise for his efficient service.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

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HERNANDO CORTEZ (1485–1547)

A Famous Spanish Soldier, the Conqueror of Mexico

AI IQ 115 AII IQ 120

I. *Family standing.* Cortez was descended from an ancient and respectable family. His parents were in moderate circumstances. The father, "a Christian gentleman," was a captain of infantry; the mother, "a remarkable woman," possessed to an unusual degree all of the feminine virtues.

II. *Development to age 17.*

1. Interests. The youth of action was galled by the life of a student, especially that of a *poor* student; "his taste was for arms and adventures." At 16 he planned to enlist in the navy, but the mishap of falling from a wall which he was scaling in order to keep an appointment with a lady prevented his departure with the fleet.

2. Education. His father, perceiving in him unusual talents, "natural quickness and sagacity, a certain degree of eloquence, and a prudent reserve superior to the years of youth," decided to educate him for the law. Accordingly, when the boy was 14 he was sent to the University of Salamanca, where he learned Latin and versification.

3. School standing and progress. At the university Cortez proved himself in no way fitted for the career which his parents had chosen for him; and as a consequence of the irregularities into which he launched, he found himself involved in difficulties and threatened with expulsion.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. At the age of 14 and 15 Cortez learned to write good prose and even verse "of some estimation."

7. Evidences of precocity. The biographers concur in noticing early evidences of ability in this youth who had, however, entered on life with a feeble constitution.

AI IQ 115 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Sailing to the Indies at 19, Cortez distinguished himself by his bravery during a stormy passage, and soon after his arrival in the new country he gave a good account of himself in battle. At the close of the war, being then 20, he was appointed notary of a new town and granted a large tract of land,

where he spent the next five years engaged in the usual activities of a planter.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

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OLIVER GOLDSMITH (1728–1774)

A Noted English Poet, Novelist, Dramatist, and Miscellaneous Writer

AI IQ 115 AII IQ 115

I. *Family standing.* Goldsmith's father, the prototype of a number of characters in his son's works, was a typical descendant in a line of good-hearted, and utterly unworldly Irish folk. He was a Protestant clergyman with a most uncertain stipend. Of the mother it is recorded only that she was the daughter of a schoolmaster.

II. *Development to age 17.*

1. Interests. (See II 4 and 7.)

2. Education. When Goldsmith was 3 years old, he began his education in a dame's school, conducted by a motherly village woman. At 6 he was sent to the village school kept by a retired quartermaster, one who was more apt to hold forth about the legends of fairies and of battles of war than about the ordinary school subjects, thus delighting the imaginative Oliver. A little later the boy was sent away to the excellent school of Mr. Griffin at Elphin, where he was introduced to the works of Ovid and Horace. From the age of 11 to 13 he attended a school of repute at Athlone; and from 13 to 15 he studied under the Rev. Patrick Hughes. He was admitted to Trinity College at 15 as a "sizar" or poor scholar.

3. School standing and progress. Oliver's progress at the dame's school was not distinguished. "Never," said the good school mistress later, "was so dull a boy: he seemed impenetrably stupid." At the village school his teacher appreciated his poetic ability; but at Mr. Griffin's school he was considered as a "stupid, heavy blockhead, little better than a fool, whom everybody made fun of." His happiest schooldays must have been with Mr. Hughes, who "penetrated his superficial obtuseness, and recognized his morbidly sensitive nature." At college, "little went well with Goldsmith in his student course. He had a menial position, a savage brute for tutor, and few inclinations to the study exacted."

4. Friends and associates. Oliver's schoolmates at Mr. Hughes's institution later recollected that the boy was diffident and backward at first but later mustered boldness to take even a leader's place in sports, and that he was certain to take part in any exploit or trick either as "actor or victim."

5. Reading. (No record.)

6. Production or achievement. (See II 7.)

7. Evidences of precocity. Although Oliver was thought dull at the dame's school, he had, according to his sister, already exhibited "signs of genius" at an age when he could scarcely write: in addition to showing great fondness for books and learning, he had distinguished himself by the habit of scribbling verses upon little scraps of paper which he then threw into the fire. On one occasion, a few of his efforts, rescued by his schoolmaster, so delighted Mrs. Goldsmith that she induced her husband to educate Oliver for a profession rather than for a trade as had been planned. A little later, at 9, the boy achieved a considerable reputation for quick, witty repartee. When he was 14 or 15, a practical joker, amused at the lad's schoolboy swagger, when journeying, directed him to a large private home instead of an inn. Here the boy issued orders with a lordly air to the host, who entered into the spirit of the occasion, and did not undeceive his guest until the following morning.

AI IQ 115 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* After taking his B.A. degree, Goldsmith at 20 or 21 tried several employments in turn without success, returning home penniless after each attempt. At 22 he went to Edinburgh to begin the study of medicine. There, however, the memory of his social qualities, his taletelling, and his singing left a deeper impression than his devotion to study. At the end of 18 months he went to Leyden to continue his medical course, but at the Dutch university he acquired no more than an additional smattering of knowledge.

AII IQ 115 (Rel. coeff. of data, .60)

REFERENCES

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MICHEL DE L'HÔPITAL (1505–1573)

A Noted French Statesman

AI IQ 115 AII IQ 135

I. *Family standing.* L'Hôpital's father, the physician, trusted councillor, and companion-in-exile to the Duke of Bourbon, Constable of France, was a kind and affectionate parent who appears to have educated his children carefully. Nothing is known of the mother or of the maternal ancestry.

II. *Development to age 17.*

1. Interests. For L'Hôpital no other than scholastic interests are reported. To these "he applied himself with ardor when he was somewhat less than 18."

2. Education. When Michel was old enough he was sent to study law at Toulouse.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 115 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* After serving a prison sentence for a political offence—or perhaps for his father's political offence—L'Hôpital betook himself to the University of Padua, which he entered at the age of 21. There he spent six years, "probably the happiest period of his life," in the study of painting and sculpture, and later of law and philosophy. His associates were men of standing in the academic world.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

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MARTIN LUTHER (1483–1546)

A German Reformer and Translator of the Bible

AI IQ 115 AII IQ 145

I. *Family standing.* Both of Luther's parents came of peasant stock. The father, a Thuringian peasant, went to the mining district of Mansfeld, where he leased first one mine and then three, and became an esteemed member of the community and one of four village councilmen. The mother was a worthy and devout woman.

II. *Development to age 17.*

1. Interests. Luther enjoyed hymn singing in his first school; indeed, this was the only pleasant memory he had of his earliest school years. Fondness for solitary contemplation developed in him before he was 14, and enthusiasm for learning became intense when, between the ages of 14 and 17, he was attending his third school.

2. Education. Before he entered school Luther had been disciplined at home by his strict and pious parents and by poverty. At home, and afterward at school, superstition and theological doctrine were an important part of his training; and although he was taught the words of the commandments by his mother, he remained in ignorance of their meaning.

At the village school which he attended from the age of 7 to 11, and where he was taught by a brutal and ignorant master, he learned the three R's, a little Latin (very poorly taught), hymn singing, and

religion. With the son of the mine overseer he was then sent on to an excellent school in Magdeburg; "the promise of the industrious, bright boy induced his father, whose circumstances, though not easy, were improving, to continue his liberal education." After three years in Magdeburg young Martin was entered at a superior school in Eisenach, where he continued from 14 to 17.

3. School standing and progress. In his first school Luther, and apparently his schoolmates also, learned little; progress in the second is not reported; in the third, whatever may have been his standing in the other subjects, his skill in Latin versification and orations developed so rapidly that he soon surpassed all others.

4. Friends and associates. The mine overseer's son was Luther's life-long friend. The teachers in his second school, and the admirable scholar and master of the third school, were friendly counselors. (See also II 6.)

5. Reading. (No specific record. See II 3.)

6. Production and achievement. Luther (aged 12 or 13) tried his hand for a short time at his father's occupation, mining; but without success. He supported himself at school in Magdeburg in the regularly accepted manner, by begging and singing, until at the age of 14 he was informally adopted by the lady, Frau Cotta, who had taken a fancy to him.

7. Evidences of precocity. (No specific account; but see II 2.)

AI IQ 115 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Luther progressed so rapidly that at 17 he could enter the University of Erfurt, the greatest of the German universities of that day. He won many friends in the university, but he did not neglect study. Advancing to the Bachelor's degree at the end of his first year, as 39th in a class of 57, he attended lectures, read voluminously, and took active part in hair-splitting disputations. Among his companions he was known as the "Philosopher"; and before long his philosophical attainments were the admiration of teachers and students alike, many of whom believed that he would live to be a great man. At the age of 19 or 20 Luther first came upon a complete Bible, and its contents impressed and delighted him. Melanchthon states that young Martin was already much talked of when, at 20, he took the Master of Arts degree as second in a class of 17.

After a few weeks study of the law, which he found distasteful, Luther (now 21) in fulfilment of a vow, but contrary to his father's wishes, gave up university life and entered a monastery. After four years of sincere struggle with himself in his desire to enter truly into the duties and obligations of the monastic life, he accepted ordination at 24. At 25 he was appointed professor of philosophy in the University of Wittenburg, and was awarded the Bachelor's degree in theology at the same time; but the latter honor he was unable to accept, as his vows did not permit him to pay the necessary fee.

AII IQ 145 (Rel. coeff. of data, .43)

REFERENCES

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JOACHIM MURAT (1767–1815)

A French Marshal, King of Naples

AI IQ 115 AII IQ 120

I. *Family standing.* Both of Murat's parents belonged to the better class of country folk. The father was a prosperous village innkeeper and postman, and agent of the wealthy district-landowners.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. As a younger son destined for the church, Murat was sent at 10 to the Cahors preparatory school, and thence to the Toulouse seminary, where he studied theology and philosophy.

3. School standing and progress. At the age of 10 Murat received a scholarship at the College of Cahors. He did sufficiently well to be sent on from the college to the archiepiscopal seminary of Toulouse.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 115 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* At 20, after several years in attendance at the archiepiscopal seminary of Toulouse, Murat, who loved action and had little desire for life in the church, left his studies without the consent of his family, and enlisted in a cavalry regiment. During the next two years the young novice, turned soldier, won rapid promotion. At 22 he was quartermaster-sergeant. But he was as fractious a military man as he had been student, and at 23 he was dismissed from the army for insubordination. At 24, on the outbreak of the Revolution, Murat again enlisted and this time reached the rank of sub-lieutenant. Soon after, he resigned because of dissatisfaction with royalist intrigue; but he re-enlisted in his old regiment a few months later and rose to the rank of lieutenant before the end of the year.

AII IQ 120 (Rel. coeff. of data, .43)

REFERENCES

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JACQUES NECKER (1732–1804)

A French Statesman and Financier

AI IQ 115 AII IQ 120

I. *Family standing.* Necker's father, a Prussian by birth, was a professor of law in the University of Geneva. He published some works on international law and also wrote on religious and economic questions. There is no information about the mother. Necker's only child was Madame de Staël (see p. 618) the celebrated French writer.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. (No record.)
3. School standing. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. At the age of 15 Necker went alone to Paris with a very limited fortune which his parents desired him to enlarge in commerce. He began his life in the metropolis as a bank clerk to M. Telluson, and from that time onward he supported himself.
7. Evidences of precocity. (No record.)

AI IQ 115 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* Necker became M. Telluson's partner, and by the time he had entered upon his 30th year, he had built up a fortune that surpassed that of the first city bankers.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCES

Staël, Madame la Baronne de, "Vie privée de M. Necker" (in *Works*, Paris, Treuttel, 1821, Vol. XVII).

Thiers, Adolph, *History of the French Revolution*, New York, Appleton, 1866, Vol. I.

NICOLAS JEAN DE DIEU SOULT (1769–1851)

A French Marshal

AI IQ 115 AII IQ 130

I. *Family standing.* Soult's father was a notary. (No further information has been found regarding any of the family.)

II. *Development to age 17.*

1. Interests. Soult showed little inclination for the law, and his father allowed him to choose his own career.
2. Education. "He was fairly well educated by 16, and was intended for the bar."
3. School standing and progress. (No record.)
4. Friends and associates. (No further record.)
5. Reading. (No record.)

6. Production and achievement. At 16 Soult enlisted as a private in the French infantry, where "he distinguished himself by his skill and bravery."

7. Evidences of precocity. (No record.)

AI IQ 115 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* After six years (aged 16 to 22) of service in the French infantry Soult's "superior education ensured his promotion to the rank of sergeant." At 22 he became instructor of the first *bataillon* of volunteers of the Bas-Rhin. At 23 he "was named by acclamation adjutant-major, and the following year, as captain"; the same year "he had distinguished himself in battle" and was made major and entrusted with "the task of organizing a division of infantry." At 25 "he received the grade of *chef de bataillon* from Jourdan, and (a month later) of *chef de brigade* adjutant general"; before he was 26 he was promoted general of brigade.

AII IQ 130 (Rel. coeff. of data, .20)

REFERENCE

Nouvelle Biographie Universelle.

EMANUEL SWEDENBORG (1688–1772)

A Celebrated Swedish Philosopher and Theosophist, Founder of the New Church

AI IQ 115 AII IQ 145

I. *Family standing.* On the paternal side Emanuel was descended from a prosperous family whose interests were devoutly religious. The father was a noted Christian reformer who was appointed, through the King's influence, to a professorship of theology at Upsala; he was later made Bishop of Skara and his family ennobled. The mother was "of good family, the daughter of an Assessor in the College of Mines."

II. *Development to age 17.*

1. Interests. Swedenborg is quoted as saying: "From my 4th to my 10th year, I was constantly engaged in thought upon God, salvation, and the spiritual experiences of men."

2. Education. No record has been found of Emanuel's early education. It is believed that he must have received his schooling at Upsala, and that he entered upon his academic studies when about 15 years of age.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. Swedenborg wrote of his childhood: "Several times I have revealed things at which my father and mother wondered, saying that angels must be speaking through

me. . . . From my 6th to my 12th year, I used to delight in conversing with clergymen about faith, saying that the life of faith is love, and that the love which imparts life is love to the neighbor: also that God gives faith to everyone, but that those only receive it who practice that love." (See also II 1.)

AI IQ 115 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Young Swedenborg concluded his academic studies at Upsala at the age of 21, by writing a thesis containing selected sentences from Seneca and Holy Writ accompanied by apposite reflections. This careful study was published in the same year, as was also a version in Latin verse of his father's paraphrase of the twelfth chapter of Ecclesiastes. Emanuel received the Ph.D. degree at Upsala when he was 22, and he published some Latin verses the same year. Between the ages of 22 and 26 he travelled and studied in Europe, acquired a knowledge of the technic of numerous trades which he thought would be useful to him as a scientist, and devised as many as 14 mechanical inventions, some of which were later made available for public use.

AII IQ 145 (Rel. coeff. of data, .53)

REFERENCES

Worcester, Benjamin, *The Life and Mission of Emanuel Swedenborg,* Boston, Little, 1907.

Ramström, Martin, *Emanuel Swedenborg,* University of Upsala, 1910.

WILLIAM WARBURTON (1698–1779)

An English Prelate, Theological Controversialist, and Critic

AI IQ 115 AII IQ 130

I. *Family standing.* Warburton was a member of an ancient and well-known family: his father was an attorney esteemed for high integrity, and his mother was a woman of "more virtues than are generally possessed by whole families throughout the whole course of their existence."

II. *Development to age 17.*

1. Interests. (See II 5 and 6.)

2. Education. William first attended school in Newark under Mr. Twells, but the chief part of his education was received thereafter at Okeham. Next, he attended the local town schoool for a few months, under a cousin who had become its headmaster. Apparently in his various schools the boy received a thorough training in Greek and Latin.

3. School studies and progress. Warburton's first master was later quoted to the effect that he had always considered this youth "the dullest of all dull scholars." There is no evidence to show that the boy ever distinguished himself in his school work.

4. Friends and associates. (No record.)

5. Reading. As a clerk to an attorney, Warburton (aged 15 to 20) "found means to pursue again and digest such of the classic authors as he had read at school, with many others which he understood to be in repute with men of learning and judgment."

6. Production and achievement. During his clerkship he found time, in addition to his duties and general reading, to work upon other elementary studies, so that by the time his clerkship was out, "he had laid the foundation of, as well as acquired a taste for, general knowledge."

7. Evidences of precocity. "Anecdotes are told of his absorption in his studies in early years, which led his companions to take him for a fool, and enabled him to ride past a house on fire without noticing it." (See also II 6.)

AI IQ 115 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Released from his clerkship at 20, Warburton expressed a desire to go into the Church, rather than into the study of law; and his cousin, headmaster of the school at Newark, furthered this wish by devoting all the time he could spare from regular school duties to helping his relative in his preparation for holy orders. At 25 the young man was ordained deacon in the Cathedral of York, and in the same year he published a book of miscellaneous translations from the Latin, a volume, however, which he tried afterward to suppress, perhaps because of its display of poor scholarship.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCE

Hurd, Richard, "Some Account of the Life, Writings, and Character of Wm. Warburton" (prefixed to his first edition of Wm. Warburton's *Divine Legation of Moses Demonstrated*, London, 1846, Vol. I).

CHAPTER XVI

CASES RATED AT AI IQ 120 TO 130

JOHN ADAMS (1735–1826)

Second President of the United States

AI IQ 120 AII IQ 145

I. *Family standing.* The Adams family, numerous in Massachusetts, included worthy and upright town officials, brewers, preachers, teachers, and "virtuous independent New England farmers." The great-grandfather and grandfather of John Adams were Harvard graduates, while the father was a farmer of little formal education, but much esteemed and beloved in his somewhat limited sphere of influence as deacon of the church, selectman of the town, and officer in the local militia. The mother was the daughter of a Brookline citizen of somewhat higher social standing than her husband.

II. *Development to age 17.*

1. Interests. (No specific record.)

2. Education. When John Adams was prevailed upon, not without some urgent advice and solicitation, to prepare himself for college, his instruction was carried on so effectively by the minister of the local First Congregational Church that he was able to enter Harvard at the age of 16.

3. School standing and progress. At college Adams was a distinguished member of a distinguished class; but it is not clear that his ability was especially noted during his first years of attendance.

4. Friends and associates. Adams' college associates were such men as Browne, subsequently Governor of Bermuda, Wentworth, Governor of New Hampshire before the Revolution and afterward Lieutenant Governor of Nova Scotia, and Locke, later President of Harvard.

5. Reading. (No specific record.)

6. Production and achievement. (No specific record.)

7. Evidences of precocity. (No specific record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* The three most able members of their Harvard class were Hemenway, later a distinguished divine, Locke (see II 4), and John Adams. The inclination of the latter (aged 16 to 20) was already toward the law, but his judgment determined him at this time to choose the ministry. However, at 20, his success in a university commencement oration secured for him a position as Latin master in the Worcester Grammar School. During three years of school teaching he applied himself with

diligence to the study of law. He lived at this time in the home of a physician in whose library he read studiously, and thereafter with a lawyer whose excellent law tomes he as eagerly devoured. At 23 he was admitted to the bar, having made a very favorable impression when he appeared before the court. He then immediately entered upon the practice of the law, for which he was eminently fitted.

AII IQ 145 (Rel. coeff. of data, .75)

REFERENCES

Adams, Charles Francis, "Life of John Adams" (in *The Works of John Adams*, Boston, Little, 1865).

Adams, Charles Francis, *Familiar Letters of John Adams and His Wife, Abigail Adams, During the Revolution*, New York, Hurd, 1876.

Morse, John T. Jr., *John Adams*, Boston, Houghton, 1889.

ALI WELI ZADE (KNOWN AS ALI PASHA "THE LION") (1741–1822)

An Albanian Who Became Pasha of Janina in 1788

AI IQ 120 AII IQ 120

I. *Family standing.* Ali was descended from Albanian stock, his grandfather having been a pasha of high position and influence. His father, driven from his patrimony by two jealous brothers, became a (successful) robber chief. The chieftain's wife was the daughter of a local ruler of some importance; she was a woman of great ability and force of character who successfully instructed her son in the conduct of war and intrigue.

II. *Development to age 17.*

1. Interests. Obstinate and indocile, Ali refused to learn to read and maltreated his teachers. The wild life of a mountaineer rather than the studious arts attracted the future bandit.

2. Education. Ali's education was chiefly in warfare, robbery, and pillage, and at the age of 14 he was master of these arts.

3. School standing and progress. (See II 2.)

4. Friends and associates. Ali's associates were his unscrupulous and ambitious parents (especially his mother, for his father died when he was 13) and other youths whose spirits were like his own.

5. Reading. Lacking in intellectual interests as he was, Ali yet recognized the importance of knowing about contemporary local history and of making a careful study of the records of past warfare. He therefore informed himself minutely of all that might have bearing on his future career.

6. Production and achievement. When he was 15 his mother still governed as regent, but Ali had already found occasion to defend his inheritance by force of arms. Three or four times during the next years the boy sought by bold attacks to retrieve the family reputation and influence, and as many times was completely routed.

7. Evidences of precocity. (No specific record.)

AI IQ 120 (Rel. coeff. of data, .00)

III. *Development from 17 to 26.* It is said that, after many repulses of fortune, Ali at length won success by the aid of a considerable treasure which he discovered by chance; he took possession of all the passes about Tepeleni, his native place, and was successful in his ravages over a wide district until finally brought to terms by the ruler, Kurd Pasha. The latter recognized Ali's ability, and seeing in him a useful ally, refrained from putting him to death. Later he made him a district ruler, and thereafter the young man's influence and wealth rapidly increased.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCES

Vaudoncourt, Gen. Guillaume de, *Memoirs on the Ionian Islands, Including the Life and Character of Ali Pasha* (Tr. Walton), London, Baldwin, 1816.
Davenport, Richard A., *The Life of Ali Pasha,* London, Tegg, 1837.

FRANCIS ATTERBURY (1662–1732)

A Noted English Divine, Politician, and Controversialist

AI IQ 120 AII IQ 150

I. *Family standing.* Atterbury's father and grandfather were rectors of the church whose interests were probably not political, for they conformed to the requirements of the existing government whatever it chanced to be. The father became chaplain to a young Duke of Gloucester, and three sermons from his pen appeared in print. Of the mother and the maternal ancestry there is no record.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. Atterbury entered the famous Westminster School at 11 years of age as a King's Scholar, and remained there until his 18th year.
3. School standing and progress. (No specific record.)
4. Friends and associates. (No specific record.)
5. Reading. (No specific record.)
6. Production and achievement. (No specific record.)
7. Evidences of precocity. (No specific record.)

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At the age of 17 Atterbury passed from his school at the head of a distinguished class which included as members a future lieutenant general and two future bishops. At college he became a zealous and able student of mathematics and the classics, giving evidence of his ability in the latter field by publishing, at the age of 19, a Latin version of Dryden's *Absalom and Achitophel.* At 21 he received the B.A. degree, and he published the same year an anthology of Latin poems by Italian scholars. At 22 he became moderator of the third class, and at 23 of the fourth or senior class. At 24, after receiving the M.A. degree, he was appointed "reader of rhetoric" in Christ Church College; and his first con-

troversial tracts, which appeared during the course of the same year, at once, by their masterly attack, put the contributions of his opponents completely in the shade.

AII IQ 150 (Rel. coeff. of data, .60)

REFERENCE

Beeching, H. C., *Francis Atterbury*, London, Pitman, 1909.

JOHN JACOB BERZELIUS (1779–1848)

A Celebrated Swedish Chemist

AI IQ 120 AII IQ 140

I. *Family standing.* Berzelius' grandfather and his great-grandfather were pastors; his father, who was a university M.A. and head of the Collega Scholae in Linköping, unfortunately for his son's happiness, died when the boy was only 4 years old. The mother was the daughter of a district judge and granddaughter of a noted church dignitary and patriot. Her second husband, Pastor Eckmarck, an admirable character and an excellent teacher, cared for the early upbringing of his stepson.

II. *Development to age 17.*

1. Interests. Nature study was fostered by Berzelius' stepfather, who made out-of-door excursions the occasion of careful observation and study: between the age of 8 and 12 the little boy learned to collect and arrange the flora of his native heath, and botanical excursions early began to absorb his time. The youth was first conscious of the pleasures of study when he found intellectual pursuits a solace during a period of anxiety and hardship.

At the age of 16, while holding his first post as tutor, Berzelius was interested, with a former teacher, in the study of entomology. A little later he determined, under this teacher's advice, to give up the study of theology which he had previously chosen and devote himself to the study of medicine; for it was clear that he possessed special scientific gifts and that a medical career would afford him an opportunity for research, in which he had become intensely interested.

Of his character, a youthful friend stated, "a more virtuous youth than Berzelius had seldom, if ever, left a school."

2. Education. Berzelius' earliest instruction was received from his stepfather; but after his own mother's death and the third marriage of the stepfather, the boy and his sister became members of an uncle's household, where the two additional mouths were not welcome.

John Jacob entered the Gymnasium of Linköping at 13, after receiving instruction from various elementary teachers. He decided at this time to enter the ministry, thus following the family tradition. Shortly before his 17th birthday he entered the university.

3. School standing and progress. At the Gymnasium the limitations of Berzelius' earlier training were apparent; still, he did not care to make good by extra study early deficiencies in subjects for which he felt little or no interest. His indifference to classical studies was expressed in carelessness. As a result, only one teacher, Hornstedt, the instructor in natural history, had a good opinion of him; but Berzelius was the declared favorite of this one. Because of the single emphasis in his study, the boy's teachers became impatient, and when the accidental discharge of his gun gave them the opportunity to express their general disapproval, they voiced it in a public sentence of disgrace. Fortunately, this was later ameliorated through Hornstedt's influence.

Berzelius' last school certificate expressed his teachers' opinion that "happy natural abilities were united in him with less admirable manners," and stated further that the future of this youth must be regarded as doubtful. However, the bishop's judgment, based perhaps on Hornstedt's opinion, was stated to Berzelius at this time as follows: "You have neglected much at the Gymnasium, but I know that you have not wasted time; go on, as you have begun, and one day you will be a useful citizen."

4. Friends and associates. Berzelius' first teacher of natural science remained always his congenial friend. Another friend's report of the boy's character (see II 2) indicates the respect in which he was held.

5. Reading. (No specific record.)

6. Production and achievement. At 15 or 16 Berzelius sought and obtained a position as house-tutor to the sons of a country gentleman. His pupils were older than their teacher, and more interested in agriculture than in science.

Before he was 17 Berzelius had made, by hand, a copy of a work of Linnaeus because he could not afford to purchase the printed version.

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At 17 Berzelius entered the university, where he studied medicine and chemistry; but his labors were frequently interrupted by the necessity of earning enough to pay his expenses. As a means to a livelihood he studied pharmacy, assisted a noted physician in his practice, and learned the mysteries of fine glass blowing. But always he carried on research, and at 19 he was engaged on an original study. Three little chemical investigations written at 21 antedated Davy's work on the same problem, although unfortunately for the northern scholar they did not appear in print until after the publication of the English report.

Berzelius was admitted to the final university examinations at 22, although his theses had been presented in Swedish instead of the customary Latin. At 24 the young scientist received the degree of M.D. From the age of 22 to 27 he was a member of the Stockholm Medical School, at 22 as fellow and lecturer, and at 24 and 25 as

acting professor. In addition to his university duties he served also as assistant physician.

AII IQ 140 (Rel. coeff. of data, .60)

REFERENCE

Berzelius, J. J., *Jakob Berzelius, Selbstbiographische Aufzeichnungen* (ed. Söderbaum), Leipzig, Barth, 1903.

RICHARD COBDEN (1804–1865)

An English Statesman, Orator, and Economist

AI IQ 120 AII IQ 120

I. *Family standing.* Cobden's ancestors were yeomen of the soil; but at least two of them were members of Parliament in the fourteenth century. The grandfather was a bailiff, a malster, and a farmer; the father was a small farmer "of soft and affectionate disposition, wholly without the energy of affairs," and financially unsuccessful; the mother was "endowed with native sense, shrewdness, and force of mind."

II. *Development to age 17.*

1. Interests. In his playtime little Richard was fond of watching his father's sheep.

At 15 or 16, while he was acting as clerk in his uncle's warehouse, he studied French in the early mornings; this was disapproved of by his uncle and aunt with whom he lived, who regarded his fondness for book-knowledge as an evil omen for a youth who was to follow a business career.

2. Education. Cobden's first tuition was received at a dame's school at Midhurst where he learned to read and write. Following this, and before he was 10, he began to attend the grammar school; from the age of 10 to 15 he was sent by an uncle to a school in Yorkshire, where, according to his own report, he was "ill fed, ill taught, and ill used."

3. School standing and progress. Cobden was said to be open hearted, unassuming, steady, and diligent, but less quick than Frederick, his elder brother. At school he showed no turn for classical acquirements, but he far surpassed his class-fellows in geography, a study in which he was much interested.

4. Friends and associates. None are mentioned except members of the family and teachers.

5. Reading. (See II 1 and 3.)

6. Production and achievement. At 15 or 16 Cobden became a clerk in his uncle's warehouse in Old Change.

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At the age of 18 Cobden was offered a situation in a Ghent business house, but he refused it to remain in his uncle's business in England. At 20 he had begun to assist in the

support of his younger brothers; at 21 he was promoted in the family business; and at 24, teeming with projects, he borrowed capital and entered business on his own account, prospering in his management of the new enterprise.

AII IQ 120 (Rel. coeff. of data, .20)

REFERENCES

Morley, John, *The Life of Richard Cobden,* London, Unwin, 1910.

McGilchrist, John, "Life of Richard Cobden" (review of, in *British Quarterly Review,* January 1866, pp. 2–20).

Cooke, Frances E., *A Short Life of Richard Cobden,* London (Cobden Club), 1904, Vol. IV.

THOMAS CRANMER (1489–1556)

Archbishop of Canterbury

AI IQ 120 AII IQ 130

I. *Family standing.* Cranmer's father, a man of moderate means, was a member of an ancient family of the English gentry. The mother belonged to a country family of some standing.

II. *Development to age 17.*

1. Interests. (See II 2.)

2. Education. At home under his father's happy tuition Cranmer learned the gentlemanly arts associated with the hunt. Unfortunately the boy's first teacher in the formal school subjects was tyrannous and brutal, a master who "appalled, dulled, and daunted the tender and fine wits of his scholars." At 14 Cranmer entered Cambridge; and there he remained as fellow, preacher, and lecturer, until he was called to the Court at the age of 40. It is said that from his 15th to his 23rd year he "lost his time" studying the dry bones of scholasticism.

3. School standing and progress. (See II 2.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Progress and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 22 Cranmer became Bachelor of Arts, and was elected a fellow of Jesus College; from this we may conclude that he pursued the theological course, for it was required of the fellows.

AII IQ 130 (Rel. coeff. of data, .20)

REFERENCES

Nichols, John Gough, *Narratives of the Reformation, Containing Two Contemporary Biographies of Archbishop Cranmer,* Westminster, Nichols, 1859.

Strype, John, *Memorials of the Most Reverend Father in God. Thomas Cranmer,* Oxford, Clarendon Press, 1812. (Two vols.)

Pollard, Albert Frederick, *Thomas Cranmer and the English Reformation, 1489-1556,* New York, Putnam, 1906.

DANIEL DE FOE (1659 OR '60–1731)

English Novelist and Political Writer

AI IQ 120 AII IQ 125

I. *Family standing.* De Foe's father, a London butcher, a nonconformist, was prosperous enough to give his son the best education then open to dissenters. Of the mother, it is recorded only that when her son used to say to her, "If you vex me, I'll eat no dinner," she taught him to be wiser by letting him wait until he was hungry.

II. *Development to age 17.*

1. Interests. Even as a boy Daniel is said to have discovered "[that] spirit of independence which terminated in an unconquerable love of liberty."

2. Education. No record is preserved of De Foe's earliest education. From perhaps his 15th to his 20th year he studied in preparation for the ministry in the nonconformist Academy at Newington Green, where, although the tutors were hampered by want of public libraries and suitable authority for maintaining discipline, they, nevertheless, gave adequate instruction in languages, logic, rhetoric, mathematics, philosophy, divinity, and the sciences.

3. School standing and progress. From the evidence in De Foe's later writings it may be inferred that he attained in his youth some mastery of five languages and made progress in science. He is further credited with having been a well-versed student of history.

4. Friends and associates. (No record.)

5. Reading. De Foe knew the Scriptures from childhood; other reading is not reported.

6. Production or achievement. During the Popery scare when the people copied their Bibles for fear of having them confiscated, Daniel (aged about 13) "worked like a horse till he had written out the whole Pentateuch, when he grew so tired that he was willing to risk the rest."

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Between the age of 18 and 20 De Foe displayed an interest in politics, enlisting himself upon the popular side. His plan for a career was altered when, at 20, abandoning the idea of entering the ministry, he became a clerk in the office of a hose factor in London. His undertakings prospered, and within three or four years he was in business for himself.

It is uncertain whether he wrote anything significant during this period beyond the political essay entitled *Appeal to Honor and Justice,* which was prepared and perhaps published when its author was 23.

De Foe was married at 24, and it is thought that a year or two later he took some part in the movement to establish the claims of the Duke of Monmouth.

AII IQ 125 (Rel. coeff. of data, .20)

REFERENCES

Aitken, G. A., "De Foe's Birth and Marriage" (in *The Athenaeum*, August 23, 1890, pp. 257 ff).

Wilson, Walter, *Memoirs of the Life and Times of Daniel De Foe*, London, Hurst, 1830. (Three vols.)

Lee, Wm., *Daniel De Foe: His Life and Recently Discovered Writings*, London, Hotten, 1869. (Three vols.)

Whitten, Wilfred, *Daniel De Foe*, London, Kegan Paul, 1900.

ANDRÉ MARIE JEAN JACQUES DUPIN (1783–1865)

A French Lawyer and Politician

AI IQ 120 AII IQ 140

I. *Family standing.* The paternal grandfather of Dupin was a physician, a solid man who became mayor of his town; an uncle of the paternal grandmother was physician-in-ordinary to the king, a man celebrated for scientific research and a member of the Academy of Sciences. Dupin's father was a lawyer and public official of considerable note. His mother (also a Dupin) was distinguished for her intelligence and energy.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. No information is available regarding Dupin up to the age of 9, when we find him in Paris with his mother while his father was being held as a suspect by the Revolutionists. During her husband's enforced absence Mme. Dupin instructed her sons, utilizing the impressions caused by the opening of the Revolution to awaken in their minds "noble and generous sentiments, hatred for violence and tyranny, and the seeds of a good character." She read aloud to them, Rollin's *Ancient and Modern History* and Plutarch's *Lives*.

When M. Dupin was released, the family appears to have returned home, the father taking charge of his sons' education himself, as the old schools had been suppressed and the new ones were not yet organized. Since André was destined for the law, he was put to work on Greek and Latin, and a little later on rhetoric. A system of selected readings was used, and, without neglecting the classics, the elder Dupin put his son through a course of French literature, especially emphasizing the works of Racine, Corneille, Boileau, Molière, and La Fontaine. The method required reading aloud, with rereading of the longer selections by the boy himself.

3. School standing and progress. (See II 2.)

4. Friends and associates. (No record.)

5. Reading. (See II 2.) Dupin's memory was so good that he could recite the four cantos of Boileau's *L'Art Poetique* without an error. He early formed the habit of making an abstract of everything he read, a practice which he continued for a long time. The care exercised by his father in training him is shown by the fact that until he was 18 André never read a single book which had not been put in his hands by his parent.

6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After Dupin, at 17, had already pleaded and won his first case, he went with his father to Paris, and entered there the School of the Quatres-Nations. Here he studied under the most distinguished teachers, among others La Grange. The standing the young man had won is evidenced by the fact that when the Academy of Legislation was founded it was Dupin who was chosen as the representative student from his district. He had in the meantime become the master clerk in the law office where he was employed, and when a little later the law schools were reopened he received (aged 21) the degree of licentiate dated back two years to the time when he began to practice law. At 23 he achieved the doctorate, sustaining the first thesis presented after the re-establishment of the law schools. During the same year he published the *Principles of Civil Law* in five volumes; but with all his other activities his law practice was not neglected; on the contrary it was increasing.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCE

Ortola, M., *Notice biographique sur M. Dupin*, Paris, Joubert, 1840.

DAVID GLASGOW FARRAGUT (1801–1870)

A Celebrated American Admiral

AI IQ 120 AII IQ 120

I. *Family standing.* Many of Farragut's paternal ancestors were high in the court and military councils of Majorca. The father was a restless man of adventurous spirit who emigrated to America at an early age. He served as an officer, now in the army, now in the navy, bought a farm near New Orleans, and after retiring from active service, continued to live there with his children after the death of his wife. The latter, descended from a good old Scottish family, was possessed of courage equal to the demands of the frontier life which she lived with her husband.

II. *Development to age 17.*

1. Interests. It is clear that Glasgow early developed a taste for the adventurous and the unknown; and this taste may have entered into his decision when Commander Porter, visiting the Farragut home, offered to adopt one of the children; for the boy (aged 7), although he said he was inspired in his reply "by the uniform of the Captain and by that of his brother William who had received an appointment in the navy some time before," was perhaps attracted also by the adventure. In any case he said promptly that he would go.

Thereafter, as a member of the Commander's household, young

Farragut occasionally accompanied his patron on excursions and boat expeditions and soon "became fond of this adventurous sort of life." When he learned that the brig "Vixen" had been fired into by a British vessel of war, he "was anxious to discharge the debt with interest;" and it was said that this incident first aroused in him a prejudice against the British.

As an 11-year-old midshipman, Farragut was fond of climbing to the top of the mainmast and sitting there curl-legged, gazing out to sea. He participated at one time with evident enjoyment in seal and sea-lion hunting when his ship stopped at Charles Island. It was apparently not until he was 16 that Farragut was first filled with a great desire for study.

2. Education. The first reference to his formal education concerns his attendance at school while Commander Porter was absent in the capital. The lad spent another period in school while the Porter family lived at Chester, Pennsylvania. Later, in company with the other midshipmen of his squadron, he attended classes during the winter of his 11th year, and again when he was 12. At 13 he was instructed by one of Napoleon's former guards, whose method was to lecture without textbooks and to take his pupils on field trips to collect minerals and plants.

3. School standing and progress. Farragut, at 16, was invited to spend nine months in Tunis studying with U. S. Consul Charles Folsom, under whose care he was taught French, Italian, English literature, and mathematics.

4. Friends and associates. Fellow midshipmen were the companions of Farragut's boyhood. His later associates were of many kinds and often cosmopolitan; during a stay at the Marquesas Islands, when he was 12, he and the other lads attached to the ship were allowed to ramble about on shore in company with the native boys. During his visit in Tunis with Folsom he "found the society of the foreign consuls very agreeable," and while on a journey to Pisa at the same period he "made many agreeable acquaintances among the Italian nobility and English tourists."

5. Reading. (No record.)

6. Production and achievement. Through special arrangements made by the Secretary of the Navy, Farragut received a midshipman's warrant at the age of 9½; at 10 he had the responsibility of commanding a wherry's crew of seamen; he accompanied Porter on the Essex at 11, and was then described as "the life of the midshipmen's mess, full of fun, and as agile as a cat." During the War of 1812, which broke out just before he was 11, "he bore a gallant part" in all the adventures of the Essex, and showed nerve and resourcefulness in his manner of warning the commander in regard to a projected mutiny of prisoners. In a successful encounter with three whalers which occurred at this time, Farragut was in charge of one of the ship's boats; and at the age of 12 he performed the feat of commanding a captured ship to Valparaiso, asserting his authority successfully in a difference of opinion with the captain

detailed to navigate the vessel. In the same year, on an expedition to a strange ship, he was sent along as Captain Downes' aide. He experienced his first battle at the age of 12¾, when the Essex defended herself against the combined attack of a British sloop and frigate. His conduct on this occasion deserved, in the words of his commander, "the promotion for which he was too young to be recommended." Following this encounter, Farragut spent some strenuous days as surgeon's assistant taking care of men wounded in the battle. Then followed many days of cruising interrupted only by the nine months' visit in Tunis, when Farragut was 16.

During his early years the voluntary guardianship and influence of a kind and manly midshipman preserved the boy from many of the temptations to which other midshipmen were exposed.

7. Evidences of precocity. (See II 1 and 6.) The U. S. consul at Tripoli wrote of Glasgow (aged 16½) to Mr. Folsom, "If he will only apply to useful purposes the talents with which he is so bountifully enriched, it must, with his amiable disposition and obliging manners, insure him the respect and esteem of all who know him, and place him at some future period high in the niche of fame."

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Farragut's career from the age of 17 onward was notable because of the increasing responsibilities that were placed upon his young shoulders. Before the end of his 19th year he received an acting lieutenancy, the duties of which he executed with discretion and ability. At 23, the year of his marriage, he received promotion to an actual lieutenancy. At 24 and 25, during a leave of absence from the navy and while he cared for his wife, now an invalid, he also attended lectures at Yale and organized a school for ship's boys.

AII IQ 120 (Rel. coeff. of data, .43)

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HENRY FIELDING (1707–1754)

English Novelist and Dramatist

AI IQ 120 AII IQ 135

I. *Family standing.* Fielding's ancestors were from the nobility and among them were several persons of considerable note. The maternal grandfather and grandmother were members of the landed aristocracy. Lady Mary Wortley Montague, "easily the most intellectual woman of the period," was Fielding's second cousin, while other members of the family were also known for their ability. Fielding's father was a brave military officer, but evidently a reckless gambler; about the mother no information has been found.

II. *Development to age 17.*

1. Interests. (No specific record, but see II 6.)

2. Education. Fielding was prepared for Eton at home by the Reverend Mr. Oliver, and he attended the famous Public School from the age of 12 to 17 or 18.

3. School standing and progress. Henry is reported to have done especially good work at Eton, but because of interruptions in his residence there he (probably) went no further than the sixth form. In the classics he was notably distinguished, and it is reported of him that he gave evidence of "strong and peculiar parts."

4. Friends and associates. Schoolfellows with Fielding at Eton were William Pitt, afterward Lord Chatham; Charles Hanbery, known later as a diplomat and a wit; Lord Lyttleton, who became a statesman and orator; and Thomas Winnington, afterward a Whig of prominence.

5. Reading. During the Eton period the Latin and Greek classics were Fielding's main reading. From childhood onward he read the fiction, histories, and books of devotion common in country households of the period. *Guy of Warwick, Argalus and Parthenia, The Seven Champions of Christendom,* he mentions especially, and the great favorite of his youth was the *Chronicle of the Vikings of England.*

6. Production and achievement. (No record.)

7. Evidences of precocity. (No specific record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 18, and soon after he left Eton, Fielding successfully carried out the romantic adventure of carrying off a 15-year-old heiress, the lady of his affections, but unfortunately as it seemed to him at the time, he was not allowed to keep his prize. From his 20th to his 26th year he lived a gay life, for the most part in London. He produced numerous satirical works in verse and in prose. *Tom Thumb,* published when its author was 23, took the town on its appearance, while ten comedies written by the young author between the ages of 23 and 25 were successfully produced in London theatres.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

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GIUSEPPE GARIBALDI (1807–1882)

An Italian Patriot and Soldier

AI IQ 120 AII IQ 125

I. *Family standing.* The men of the Garibaldi family were merchant-captains, sailors, and shipbuilders. Giuseppe's father, a merchant-

captain, a man of little education, valued formal training so highly that he gave his son a better education than his means could well afford. He always regretted his son's warlike pursuits. The mother was a gentle, pious soul.

II. *Development to age 17.*

1. Interests. At the age of 8, Giuseppe saved a washerwoman from drowning in a deep ditch; at 12 he saved several boys whose boat had capsized. Devoted to many outdoor sports, he was an especially ardent fisherman. He was also musical. He had a beautiful voice and was fond of singing; he knew all the songs of the sailors and peasants, and a good many French ones besides. His youthful kind-heartedness is attested by his weeping when the leg of a grasshopper was broken in his hands.

So strong was young Garibaldi's inclination to go to sea, that, at 15, he could resist it no longer; and he persuaded some other lads to run away with him. The others were brought back, but Garibaldi was permitted to become a sailor.

2. Education. Before the beginning of his sea career Garibaldi was taught at home, first by two priests and later by a lay teacher who instructed him in Italian and the rudiments of Latin, writing, mathematics, and Roman history. By himself he learned algebra, geometry, astronomy, geography, and commercial law; but perhaps this was during his life at sea (15 to 25).

3. School standing and progress. (No specific record.)

4. Friends and associates. (No specific record.)

5. Reading. When he had a book that interested him, Garibaldi would lie for hours reading under an olive tree: he loved the works of Poscolo, the liberal poet of his own age and people; French he read almost as easily as Italian; and he enjoyed the works of Voltaire and committed some of his verses to memory.

6. Production and achievement. At 15 Garibaldi began his sea career as cabin boy.

7. Evidences of precocity. (No specific report.)

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Garibaldi, cabin boy at 15, worked his way through the various ranks to a captaincy at 24. During the Greek War of Independence he sailed in the Levant on perilous trips full of adventure. It was significant for his future career that, at 25, he was indoctrinated with Saint-Simonian revolutionary idealism by a group of French exiles.

AII IQ 125 (Rel. coeff. of data, .43)

REFERENCES

Garibaldi's Autobiography (Tr. Werner), London, Smith, 1889. (Three vols.)

Trevelyan, G. M., *Garibaldi's Defense of the Roman Republic*, London, Longmans, 1912.

"The Garibaldians" (in *The Nation*, Vol. 100, January 28, 1915, pp. 102–103).

FRANCESCO GUICCIARDINI (1483–1540)

An Italian Historian and Statesman in the Pontifical Medicean Service

AI IQ 120 AII IQ 140

I. *Family standing.* On the paternal side Guicciardini was descended from a family whose members often held diplomatic and other honorable state posts. The grandfather was a "learned man as well as a great general"; and the father, a famous lawyer and eloquent diplomat, was also a valiant officer. The mother was descended of an ancient and noble family.

II. *Development to age 17.*

1. Interests. According to his own statement, Guicciardini, when 15 years of age, cherished a desire to enter the church, clearly not from religious motives, nor from "an inclination to lead an idle life," but because he thought that being young he "might be in the way of obtaining rich preferments in the church with hopes sometime or other to be made a Cardinal."
2. Education. In his 16th year he began to study the Civil Law, and the same year, at Florence, he heard the Institutes.
3. School standing and progress. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Indications of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Guicciardini states that at 22 he received his degree in the chapter of St. Lawrence, in the College of the Students at Pisa; and he adds that he chose to be Doctor of the Civil Law only, because he thought the Canon of little importance. "In the 23rd year of his age he was appointed a professor of the Institutes at Florence, with a competent salary for those days, and soon established such a character that he was consulted and preferred to all other lawyers his contemporaries." At 24 "he was chosen by many cities of the state for their standing counsellor."

AII IQ 140 (Rel. coeff. of data, .43)

REFERENCE

"Life of Francesco Guicciardini" (in his *History of Italy*, London, Towers, 1753, Vol. I).

WILLIAM HARVEY (1578–1657)

English Physician and Physiologist and Anatomist

AI IQ 120 AII IQ 150

I. *Family standing.* It is possible that William Harvey was descended from Sir Walter Harvey, a distinguished mayor of London and an

original thinker on municipal government; for the coat of arms was the same. Be that as it may, William's father, an alderman of Folkestone, and mayor in 1600, "seems to have been a man of more than ordinary intelligence and judgment"; he was revered, consulted, and implicitly trusted by his sons. The mother was a tender parent, a careful housewife, and a good neighbor.

II. *Development to age 17.*

1. Interests. Harvey's choice of Caius College indicates that he was already, at the age of 16, destined for medicine, for Caius may be said to have introduced the study of practical anatomy into England.

2. Education. From the age of 10 to 15 William attended King's School, Canterbury; and at 16 he entered Cambridge as an ordinary student.

3. School standing and progress. At Cambridge Harvey probably studied the usual subjects: classics, dialectics, and physics.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Indications of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 19 Harvey received the B.A. degree from Cambridge. Not long after, he went to Padua University, at that time renowned for its anatomical school. Fabricius, surgeon, anatomist, and medical historian, was then engaged in perfecting his knowledge of the valves of the veins; and undoubtedly Harvey learned anatomy under his instruction, for the noted master and the pupil became fast friends. At the age of 24 Harvey received his diploma in medicine from Padua "with the highest commendation"; and in the same year he obtained the M.D. from Cambridge and admission to the College of Physicians, which held the licensing power in London.

AII IQ 150 (Rel. coeff. of data, .43)

REFERENCES

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Audrey, John, "Harvey" (in *Brief Lives* [Ed. Clark], Oxford, Clarendon Press, 1898, Vol. I, pp. 295–305).

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FRANZ JOSEPH HAYDN (1732–1809)

A Celebrated Austrian Composer

AI IQ 120 AII IQ 140

I. *Family standing.* Haydn's father followed the craft of many of his forebears, that of wheelwright; but his chosen avocation was music.

He had a fair tenor voice, and without knowing a note he accompanied himself on the harp. Of the mother we know only that she was tender and affectionate, beloved of her son.

II. *Development to age 17.*

1. Interests. As soon as little Haydn was old enough to sing, he took part in the family "musicals," astonishing even the home circle by the correctness of his ear and the sweetness of his voice. He imitated the handling of a violin bow with a little stick, which he drew back and forth over another one, thus accompanying his songs.

In Vienna Haydn (aged 8 to 18) worked on his music while the other boys were at their games. He was chiefly occupied with singing, which he regarded as of the utmost importance for a future composer; but he was also interested in composition, and "every piece of paper that fell into his hands he covered with staves and stuck them full of notes." Reutter, the Capellmeister, laughed heartily on finding the boy writing a *Salve* for twelve voices; nevertheless, he recognized young Haydn's ability, for he advised him to write variations to his own liking on the pieces he heard in church, a practice which gave the boy fresh and original ideas as well as the benefit of his teacher's corrections. Studying early and late, Haydn was happy.

2. Education. At the age of 6, and under the tuition of the cousin who had adopted him, "Haydn learned the musical rudiments and studied other branches necessary to youth"; he learned the nature of the ordinary instruments and could play upon most of them. When he was 8 years old he was pronounced by the Court Capellmeister sufficiently talented to enter the choir; and from 8 to 18 he served as a member of the select choir group. In addition to exercising his voice in frequent practice, he devoted himself to the study of the piano and violin under superior masters. But the general course of studies included "only the scantiest instruction in religion, writing, ciphering, and Latin"; and even the singing was so poorly taught by the imperious and rather indifferent Capellmeister, that Haydn soon became practically his own teacher.

3. School standing and progress. While a member of the cathedral choir in Vienna Haydn worked from sixteen to eighteen hours daily, although only two hours' work was required.

4. Friends and associates. Haydn's teachers, his cousin Frankh and the Capellmeister, Reutter, discovered his remarkable ability and gave him opportunities for developing it. No other friends or associates are specifically mentioned.

5. Reading. (See II 6.)

6. Production and achievement. When he was 13 Haydn wrote a church mass which Reutter severely ridiculed; and the boy felt the justice of the criticism, for he knew that he lacked knowledge of counterpoint and of the rules of musical structure. Reutter, however, had given him only two lessons and did not care to bother further, nor did Haydn have the means to pay for additional tuition. Undismayed, the little musician bought books on the subject and

"dug it out for himself." Working alone and without a master he made an infinite number of discoveries that were later of the greatest value to him. (This incident is ascribed by some writers to Haydn's 20th year.)

7. Evidences of precocity. A visiting relative observed Franz, before he was 6, as he sat beating time with astonishing exactness and certainty. This relative, a schoolmaster and choir leader in another town, became so impressed by the child's possibilities that he offered to adopt him and undertake his musical education. Fortunately the parents, having destined their son for the priesthood, were glad to avail themselves of this step toward what they hoped might be the accomplishment of their purpose.

Even at the age of 6 Haydn sang with confidence several masses in the church choir, and he could play a little on the piano and violin. Between 6 and 8 he learned, in one lesson, to play on the kettledrum, and thereafter he played that instrument in the orchestra. It was this practical demonstration of his ability that convinced his teacher that he was destined for a musical career.

Until he was 8 years old Haydn devoted himself to vocal practice, undirected, making astonishing progress. When in his 9th year he was examined by the Court Capellmeister, he sang a canon at sight with such precision and purity of tone that the older musician was greatly impressed; but the boy could not trill. The Capellmeister showed how this was done, whereupon, after one or two trials, Haydn trilled as if he had always known the trick. He was not then a complete master of any instrument, but he soon knew the quality and action of all of them; he was no mean pianist and singer, and he could play violin concertos.

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* When, in his 18th year, his voice failed, Haydn was dismissed from the choir of St. Stephens. Refusing to conform to his parents' wish that he enter the church, he devoted the next eight years to the miserable task of earning a scant livelihood teaching music, while attempting to follow a severe course of musical self-education. In the meantime he was producing minuets, valses, and other charming pieces, from which the publishers were reaping an income, while the author was content to see his name in the booksellers' windows.

When he was 19 his first opera score was presented successfully, and before he had reached his 24th year his genius was quite generally recognized. It was stated that "everyone was in raptures" over the eighteen string quartets which appeared before he was 26, but the composer himself was "modest even to timidity and could not bring himself to believe that they were of any account."

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCES

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BEN JONSON (1573–1637)

A Celebrated English Dramatist

AI IQ 120 AII IQ 145

I. *Family standing.* Ben Jonson's grandfather was a gentleman in the service of King Henry VIII. His father suffered a long imprisonment under Queen Mary, was deprived of his estate, became a "grave minister of the gospel," and died before his son was born. Ben's mother was a "woman of vigorous character, with much of the proud selfconsciousness which marked her son."

II. *Development to age 17.*

1. Interests. After a brief stay at college, the youth took up the craft of his stepfather; but he could not "endure the occupation of a bricklayer," and so adopted military service as a means of escape.

2. Education. "When of a proper age" Ben was sent to a private school in the church of St. Martin-in-the-Fields, and later to the famous Westminster School. There, Camden, whose name is dear to literature, taught him to write in prose and then to versify the matter thus digested. He also taught him Greek and Latin literature thoroughly. When in the uppermost form in the school Ben was removed (age uncertain). He seems to have gone at once to Cambridge. His stay there was short, perhaps only a few weeks, and the granting of his M.A. was due to the "favor of the university and not to his studies."

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (See II 1.)

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Young Jonson went to Flanders as a volunteer in the army and returned with "a smattering of Dutch and an empty purse." As long as he followed the profession of arms, "he did not shame it by his actions." He tells about killing an enemy in the face of both the camps and taking *"optima spolia"* from him.

His first play, *Every Man in His Humor,* was produced when the writer was 23 and was acted eleven times within six months. At 24 Jonson was listed as a player and a playwright, and was working on two plays; at 25 he worked over his first play, changing the scene of action. The work was then presented and well received; Shakespeare performed in it. Jonson was at this time joint author of a comedy, *Hot Anger Soon Cold.* The same year he killed another actor in a duel, was convicted of homicide, claimed "benefit of the clergy," was dismissed, and forfeited his goods and chattels. While in prison he was converted to Catholicism.

AII IQ 145 (Rel. coeff. of data, .43)

REFERENCES

Gifford, Wm., "Biographical Memoir of Ben Jonson" (in *Works of Ben Jonson*, London, Bickers, 1875).
Symonds, John Addington, *Ben Jonson*, London, Longmans, 1886.
Smith, George Gregory, *Ben Jonson*, London, Macmillan, 1919.

ANTOINE LAURENT LAVOISIER (1743–1794)

A Celebrated French Chemist, the Chief Founder of Modern Chemistry

AI IQ 120 AII IQ 150

I. *Family standing.* Among Lavoisier's paternal ancestors were a rider of the King's horses and a "*maitre de poste.*" The chemist's father, who was "*procureur au parlement de Paris,*" had a scientific bent of mind. The mother was a lawyer's daughter.

II. *Development to age 17.*

1. Interests. Lavoisier's first interest was in literature, and he dreamed of being a writer; then after studying philosophy he developed a decided taste for the sciences.

2. Education. At the age of 5 Antoine lost his mother; he went with his father and sister to live with his grandmother and aunt, who appear to have been wise as well as rich. The aunt, with warm and intelligent affection devoted herself to the children, and nothing was neglected which would contribute to the boy's education. Antoine was sent to the Mazarin College, and while in attendance there he lived with a family of "honest people" who developed in him sentiments of loyalty and justice, and the love of work.

3. School standing and progress. Lavoisier was full of enthusiasm for study and had numerous successes.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. Antoine outlined a prose drama entitled *La Nouvelle Hèloise* but wrote only the first scenes. He wrote essays on subjects assigned by the various academies of the province, of which two were as follows: "Uprightness of character is as necessary in the search for truth, as impartiality of the mind," and "Is the desire to perpetuate one's name and deeds in the memory of mankind compatible with nature and reason?"

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* On leaving Mazarin, Lavoisier studied law, receiving the Bachelor's degree at the age of 20 and being admitted to the bar the following year. At the same time he studied mathematics and astronomy with the learned Abbé de la Caille, botany with Bernard de Jussieu, mineralogy and zoölogy with Guettard, chemistry with Rouelle, and also anatomy; unfortunately injuring his health by these many occupations. It was at this time that he began to make barometric observations to discover

the laws governing atmospheric movement. He became Guettard's assistant in mineralogy and for three years worked on soils. His first original work (at the age of 21) was a piece of research on different kinds of gypsum. The next year he competed for a prize offered for an essay on "The best means of lighting the streets of a large city" and received a special gold medal for the excellence of his work. He accompanied Guettard to Alsace and Lorraine and took barometric and thermometric readings, made notes on the soil, and collected samples of mineral, etc. At the age of 25 he was elected to the Academy of Sciences.

AII IQ 150 (Rel. coeff. of data, .60)

REFERENCE

Grimaux, Edouard, *Lavoisier*, Paris, Alcan, 1888.

JAMES MADISON (1751–1836)

The Fourth President of the United States

AI IQ 120 AII IQ 135

I. *Family standing.* The Madisons were members of an old Colonial family, independent land holders in comfortable circumstances. The father was "a careful planter and patriotic citizen, accepting his public duties without aspiring to fame in them." The mother, the daughter of a planter, was held in great reverence by her family and relatives; she was "noted for her piety."

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. "The elder Madison resolved that his children should have advantages of education which had not been within his own reach." He prepared his son James for college, giving him first a regular school course and then special training under a tutor, the clergyman of the parish, who lived as a member of the Madison household.
3. School standing and progress. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 18 Madison entered Princeton, and during his first year there he founded "The American Whig Society." He graduated at 21, but remained at the university for another year studying, "apparently for the ministry." Returning to Virginia at 22, he continued his reading and study, devoting himself particularly to theology and Hebrew; he also tutored the younger children of the family. At 24 he was made chairman of the Orange

County Committee of Safety and wrote its response to Patrick Henry's call for the arming of a Colonial militia. At 25 he was a delegate to the New Virginia Convention and became a member of the committee which drafted the state constitution.

AII IQ 135 (Rel. coeff. of data, .43)

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Fiske, John, *Essays, Historical and Literary*, New York, Macmillan, 1902, Vol. I, pp. 183–219.

FRANÇOISE D'AUBIGNÉ DE MAINTENON (1635–1719)
The Second Wife of Louis XIV

AI IQ 120 · AII IQ 130

I. *Family standing.* Madame de Maintenon belonged to a family of position and reputation. "Her paternal grandfather was an outstanding figure of his time, a reformer, a writer, and the friend and companion-in-arms of Henry IV. Her father, an only son, educated and talented in music and verse, was possessed of an immoral, vicious, and treacherous disposition." He was in prison for a political offense at the time of his daughter's birth. The mother was a delicate woman, whom trouble had made "somewhat severe and cold in manner"; she was, however, devoted to the welfare of her children.

II. *Development to age 17.*

1. Interests. Françoise was first a philanthropist when, at 11 years of age or perhaps a little later, she accompanied her aunt on errands of mercy to the poor and sick. The child's early independence of mind is shown by her tenacity in clinging to the Protestant faith, in which she had been reared by her aunt; it was only after years of instruction and exhortation that she was finally reconverted to Catholicism, the religion of her family.

2. Education. The teaching she received in the Protestant home of her aunt "made a marked impression on the young mind of Françoise d'Aubigné; so much so that her mother, a devoted Catholic, took fright at the thought of the possible consequences and wished to place her daughter in a convent." The mother's desire being accomplished, although only after Françoise had spent an unhappy interim in the home of a Catholic relative, the child lived quite contentedly at the Ursuline convent at Niort. Later, however, at a convent of the same order in Paris, severe treatment made her most unhappy. At the age of 14 she visited again in the home of her Catholic relatives, sharing with a young daughter of the house the instructions of a friend of the family, the celebrated Chevalier de Mère, who had "a fondness for forming the taste and the manners of charming young ladies."

After her marriage at the age of 16 to Paul Scarron, the noted burlesque poet, even then a helpless cripple and three times her age, her education was "perfected" by her husband: "with him she studied Latin, Spanish, and Italian, so that she could both read and write those languages."

3. School standing and progress. Before she was 15 "the beauty and intelligence of Françoise d'Aubigné had already attracted attention."

4. Friends and associates. Françoise appears to have been constant in her affections. The little daughter of the jailer of her father's prison was a childhood playmate whom she never forgot (see II 7), while a very holy and learned man whom she had admired in the convent became her firm friend, and to him she continued to write weekly as long as she lived. Before she was 16 she met Scarron, who was to be her husband; and after her marriage it was her privilege to entertain "the most witty and amiable people of Paris," writers and artists of distinction and courtiers of note.

5. Reading. The only specific report of her reading states, that when minding the turkeys with her cousin, at the age of 11 or more, she was given a volume of Pybac's poetry with orders to learn several pages before returning at the end of the day.

6. Production and achievement. Scarron, upon being shown a letter written by Françoise in her middle teens was astonished to find what an amount of "wit and intelligence" was possessed by the shy, blushing girl who had been brought to his house some time before.

7. Evidences of precocity. In after years Mme. de Maintenon pointed a moral in the story of her quarrel with the jailer's little daughter who was her playmate before she was 10, "She mocked at my poverty; I replied, 'You are rich, it is true, but you are not a young lady and I am!' "

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After her marriage Françoise cared for her husband until his death 8 years later. From the first "the young wife . . . knew how to take a line of her own, and to make herself respected. Her attractions made the salon of their little house in the Rue Marais even more crowded than formerly with visitors." Her influence was pronounced: for her sake Scarron cured himself of his habit of unlicensed conversation, while her gracious yet dignified demeanor "protected her from the advances of too ardent admirers." After her husband's death, when she was 25, Mme. Scarron took lodgings in a convent, where she lived for some time, without, however, giving up association with her friends in the outside world.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCE

Dyson, C. C., *Mme. de Maintenon, Her Life and Times*, New York, Lane, 1910.

JOHN CHURCHILL, FIRST DUKE OF MARLBOROUGH (1650–1722)

A Famous English General and Statesman

AI IQ 120 AII IQ 125

I. *Family standing.* John Churchill belonged to a royalist family of note, long settled in Devonshire. His father was well known as a statesman and an historian; his mother, a clever but sharp-tongued woman, was a daughter of Sir John Drake, a Cavalier.

II. *Development to age 17.*

1. Interests. As page to the Duke of York, young Churchill usually accompanied his patron upon military inspections; he evinced the utmost interest in these parades, and soon learned to answer quickly and clearly all questions concerning drill details.

2. Education. Churchill's father, "an earnest student of history," was his son's earliest instructor. But at the age of 12 the boy was attending the City Free School in Dublin, "an old foundation for some twenty children of poor freemen"; and the following year he entered St. Paul's School, where he remained until at the age of 15 his school education was ended.

3. School standing and progress. From the early instruction of his father Churchill "drank in a love of England and a deep respect for its history, laws, and liberties, which influenced his whole subsequent career." Before leaving school he had at least an elementary knowledge of Latin. "When we further remember that in early life he could converse fluently in French . . . we feel that when his enemies pronounced him to be 'grossly illiterate' they grossly maligned him."

4. Friends and associates. (No specific record.)

5. Reading. John "first learned the elements of the art of war" from Knight's *Life of Colet,* which he read at school before he was 15.

6. Production and achievement. In his 16th year Churchill began his service as page to the Duke of York.

7. Indications of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* When Churchill was 17 the Duke of York was so pleased with his precocious military knowledge that he made him, at the boy's own request, an ensign. A little later the popular youth wearied of court amusements and went to Tangier in search of military adventure and distinctions; at 22, however, he rejoined the household of his Duke and was sent out as captain of grenadiers to join the French forces against Holland. At the siege of Maestricht he distinguished himself by his courage and daring, attracting the attention of Louis XIV; he was promoted over the head of the lieutenant of his own corps, and became the hero of the hour. Before he was 24 he had been appointed successively "gentleman of the

bedchamber," "master of the robes," and lieutenant-colonel; and before he was 25 he was designated colonel.

AII IQ 125 (Rel. coeff. of data, .20)

REFERENCE

Wolseley, Viscount, *Life of Marlborough*, London, Bently, 1894, Vol. I.

JOHANN REUCHLIN (1455–1522)

A Celebrated German Humanist

AI IQ 120 AII IQ 150

I. *Family standing.* Of Reuchlin's parents little is known except that they were "reputable people" and that his father was bailiff or steward of a Dominican convent. The mother was "very pious" and was revered by her son.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. During his boyhood Reuchlin attended the Latin School at Pforzheim, where scholarly men maintained a good standard. At 15 he entered the University of Freiburg, at that time a youthful institution dominated by medieval tradition.
3. School standing and progress. Reuchlin was sufficiently distinguished at school to be sent on to the university. There his chief progress was made in Latin scholarship.
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* When he was 19 Reuchlin served for a time as travelling tutor to a young prince. Then he entered upon the study of classical languages in the university at Paris under the celebrated teacher Johannes a Lapide, whom he later followed to the newly founded University of Basel. He obtained the B.A. and M.A. degrees by the time he was 22, after publishing, at 20, a Latin dictionary which showed "promise, amply to be fulfilled, of his future erudition." He began to teach Latin and Greek at 22; but in the same year left his teaching to study law at the University at Orleans, where he received the degree of Bachelor of Civil Law at 24. At 26 he received the licentiate with special privileges.

AII IQ 150 (Rel. coeff. of data, .60)

REFERENCES

Geiger, Dr. Ludwig, *Johann Reuchlin Sein Leben und Seine Werke*, Leipzig, Duncker, 1871.

Lilly, Wm. Samuel, "Erasmus" (in *Renaissance Types*, London, Unwin, 1901).

Geiger, Dr. Ludwig (Ed.), *Johann Reuchlin's Briefwechsel*, Tübingen, Lit. Verein in Stuttgart, 1875.

ARMAND JEAN DU PLESSIS, CARDINAL AND DUC DE RICHELIEU (1585–1642)

A Celebrated French Statesman

AI IQ 120 AII IQ 135

I. *Family standing.* Richelieu's paternal ancestors "had lived for generations in provincial obscurity"; his father was captain of the guard. His mother, however, was the daughter of a celebrated advocate.

II. *Development to age 17.*

1. Interests. While at the *Académie* and before he was 17, Richelieu "acquired the military tastes that never deserted him."
2. Education. Between his 6th and his 13th year he received a rudimentary education in the town of Richelieu. At 12 he was sent to Paris and admitted to the college of Navarre, and was later transferred to the *Académie,* an institution where sons of noble families received military training.
3. School standing and progress. At the college of Navarre he "went through the ordinary courses of grammar and philosophy."
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 18 Richelieu left the *Académie* and returned to the university, thus taking the first step toward the fulfilment of his mother's wish that he become a bishop. At 21 he completed his theological course and took deacon's orders; at 22 he was admitted a member of the Sorbonne or theological faculty; and at 23 he accepted the bishopric of Luçon "although he preferred to remain in Paris."

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCE

Lodge, Richard, *Richelieu,* New York, Macmillan, 1914.

GIOACHINO ANTONIO ROSSINI (1792–1868)

A Celebrated Italian Operatic Composer

AI IQ 120 AII IQ 130

I. *Family standing.* Rossini was descended from a family of some importance in earlier centuries. But the composer's father, who was characterized as lively and superstitious, held the humble positions of town trumpeter and inspector of slaughterhouses. He was an ardent Republican. The mother, a bread-baker's daughter, was a handsome woman, by nature serious, elevated, and sentimental.

While her husband was in prison for a political offense she became a *prima donna buffa* and sang at operas, fairs, and carnivals. She was joined, on his release, by her husband, who became first hornist of the troupe.

II. *Development to age 17.*

1. Interests. Rossini was a lazy little boy; he preferred doing nothing to any definite pursuit. Seeing his lack of interest in work, his father set him to blow the bellows in a blacksmith's shop, inviting his little playmates to jeer at him the while. From his 13th year Rossini's interest in music appears to have been aroused, and from this time his one ambition was to become a writer of operas.

2. Education. Rossini was brought up, from his 7th year, in frequent contact with musicians, although, while his parents made musical tours, he was left with the pork butcher to be instructed in Latin. His teacher "taught him nothing," and the limits of his formal education are indicated by the statement that it was completed when two other instructors had taught him in the three R's.

Rossini received his first music lessons when he was 7 years old from a teacher who was both eccentric and lazy, and who, when he taught his pupils at all, taught them to use but two fingers. At the age of 12 the lad was taught singing and accompaniment to such good purpose that soon his youthful treble was in demand at the churches. Instruction in singing continued.

In his 16th year Rossini entered the Bologna Lyceum as a student of counterpoint under Mattei, a pedant, one who could give no good reasons for what he taught. Through the interest of a friend, Rossini had already made the acquaintance of the German composers, in whom he recognized great masters, and whose manner he attempted to imitate. At this time Rossini's first definite ambition was still manifest; for when one day the teacher remarked that his class, who could not yet write sacred music, were complete in their knowledge of opera construction, the 16-year-old pupil departed abruptly, stating that he had then achieved his purpose.

3. School standing and progress. (See II 2 and 4.) (Rossini's education was almost entirely in music.)

4. Friends and associates. For the most part, Rossini's associates were musicians, music teachers, and fellow students; an exception to the rule was an engineer, the Chevalier Giusti, who took an interest in the lad and read with him the masters of Italian literature.

5. Reading. (See II 4.)

6. Production and achievement. While still very young (perhaps even before he was 12) Rossini sometimes joined his parents in their musical excursions, playing the second horn when his father played the first. Between the ages of 12 and 14, Rossini sang in the churches, receiving small sums for his services; he worked hard with his treble, even singing transposed bass and tenor solos. On one occasion he took the part of Adolfo in Paer's *Camilla* at the Bologna theatre. His principal source of income lay in teaching the opera singers

their rôles (few of them could read music), and in playing the spinet at representations.

When he was about 14 Rossini could execute the most difficult music at first sight and was able to act as musical director to a little provincial travelling company. At the age of 15 he conducted the monthly concerts of the "Academia d'I Concordi." There were some murmurs at the appointment of one so young, but the lad's talent, his firmness, and his vigor soon "made the grumblers obey and hold their tongues." It was perhaps during his 16th year that Rossini signalized his reign by a deed of daring; he rehearsed and presented Haydn's *Seasons,* and his execution was said to have been "so perfect that it excited the admiration of everybody." (The date of this incident is uncertain; it may have occurred later, although the single best authority places it before Rossini was 16.)

At about the same time Rossini began to appear as *Maestro al Cembalo* in the concerts in the various towns where his father played the horn. His ability was beginning to be noticed; and a member of a company of itinerant opera singers, impressed by his performance, gave him verses to set to music. The boy was flattered; and he did his best, quite unconscious that the verses were connected and formed a complete story. Thus, bit by bit, he composed the opera *Demetrio e Polibio.*

Before he was 16 Rossini had mastered the art of singing in such fashion as to be able to teach its secrets to the best artists in Italy. He could reduce full scores to the keyboard at first sight; he was a finished accompanist. "He had composed by instinct little duets for two horns, a number of pieces for the voice and pianoforte, and an opera (without having learned a rule of counterpoint)." He was an accomplished pianist and hornist, and was familiar with a number of other instruments. His desire was to acquire sufficient knowledge for good writing of both the theory and the practice of music.

As the best student of the year, he was commissioned in the music school to compose a cantata for public performance; and the same year he composed a symphony and a mass which are still preserved.

7. Evidences of precocity. (See II 2 and 6.)

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Rossini continued his musical studies in Bologna, and compositions continued to flow from his pen. His first opera, *La Cambiale di Matrimonio,* appeared in Venice when its composer was 18, and the following year he produced two operas, one appearing in Bologna, the other in Rome. Five new operas appeared, before their writer was 21, in three cities: Venice, Ferrara, and Milan. One of the three, *Tancredi,* soon achieved European fame for its young composer. At 23 Rossini was engaged as musical director of two Neapolitan theatres for a term of seven years with the proviso that he produce two new operas each year. In less than a year he produced four. One of these, the *Barber of Seville,* composed in thirteen days for a Roman theatre, was an immediate

and brilliant success; while *Otello,* another production of the same year, won a triumph less immediate, but as lasting.

AII IQ 130 (Rel. coeff. of data, .60)

REFERENCES

(Based on Stendhal and Azanedo and other standard lives.)
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Dole, Nathan Haskell, *A Score of Famous Composers,* New York, Crowell, 1891.

JOSEPH JUSTUS SCALIGER (1540–1609)

A Celebrated Protestant Scholar

AI IQ 120 AII IQ 155

I. *Family standing.* Joseph Justus' father was the distinguished scholar, Julius Caesar Scaliger, a learned classicist and noted writer; an Italian, he claimed noble ancestry, but without satisfactory proof of his claim. The mother came of a French family of good standing.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. When he was 11 Joseph was sent with two younger brothers to a Latin school in Bordeaux, where two distinguished friends of his father held teaching posts. He remained there until he was 14 and then returned home because of an outbreak of the plague. From the age of 14 to 18 he was under his aged father's tutelage and was limited to the training which the scholar, at 70, could give him.

3. School standing and progress. During the years of study with his father, Scaliger was "required to produce daily a short Latin declamation, and also to keep a written record of the perennial flow of his father's Latin verse. It was thus he acquired his early mastery of Latin," for the aged man produced near a hundred lines of Latin verse each evening.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Young Scaliger wrote, at the age of 17, a Latin tragedy, *Edipus,* (not preserved), "the remembrance of which even in his advanced age gave him no cause to blush." Soon after his father's death and at the age of 19 he went to Paris, where he attended lectures and mastered Greek by himself. His stay in Paris from his 20th to his 24th year was marked by his conversion to the Reformed Church, and by his association with brilliant and learned men. In his 25th year he journeyed to Rome as the companion of the French Ambassador, and there issued his first publication, a study of the Latin poet, Varro.

AII IQ 155 (Rel. coeff. of data, .53)

REFERENCES

Bernays, Jacob, *Joseph Justus Scaliger*, Berlin, Hertz, 1855.

Sandys, John Edwin, *A History of Classical Scholarship*, Cambridge, University Press, 1908, Vol. 2.

LOUIS ADOLPHE THIERS (1797–1877)

A Distinguished French Statesman and Historian

AI IQ 120 AII IQ 140

I. *Family standing.* Thiers' paternal grandfather was a parliamentary lawyer of Provence, and registrar in Marseilles; his father was, at the time of his son's birth, a workman about the port of Marseilles. The mother belonged to a commercial family in somewhat straitened circumstances.

II. *Development to age 17.* (No dates are available for Thiers' early life. It is only possible to say that his attendance at the Lycée was over when he reached the age of 18.)

1. Interests. No record is preserved except of his school activities.

2. Education. Thiers was reared by his mother's relatives, and it was they who obtained for him a scholarship in the Lycée of Marseilles.

3. School standing and progress. In the Lycée he did well in his studies, "as is often the way with scholarship students who are stimulated by their precarious position." He already manifested "ceaseless activity, willingness to work, and an insatiable desire for knowledge." He was also actuated by self-respect and by ambition and "that self-confidence which contributes to success." From the high character of his work at Marseilles, we may infer that he gained a fairly good knowledge of the humanities especially Latin; but he gave special attention to mathematics, in preparation for the military career toward which everything was brought to bear.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 18 Thiers concentrated his efforts upon the study of law at Aix, and at 21, was admitted to the bar. In the meantime, he had devoted much attention to philosophy and speculative analysis, both mathematical and metaphysical; the doctrines of Leibnitz and Descartes engaging his attention particularly. At the age of 23 he gained first and second prizes at the Academy of Aix, besides winning a high reputation for two able essays he had submitted which discussed the same question from opposite points of view. At 24, after abandoning law for journalism, he began to gain prominence in Paris by his political writings and by his critical articles on painting. At the age of 25 he

traveled in France and Switzerland and his experiences and observations were reported in an article published a little later. At 24 and 25 he was probably working on his *History of the Revolution,* which, appearing when he was 26, first brought the young author into real prominence.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCE

Sainte-Beuve, C. A., "Thiers" (in *Portraits Contemporains,* Paris, 1870, Vol. 4, pp. 62–124).

SIR ANTHONY VAN DYCK (1599–1641)

A Famous Flemish Painter, Best Known as a Portrait Painter

AI IQ 120 AII IQ 135

I. *Family standing.* Van Dyck's grandmother with the assistance of her two sons carried on the prosperous silk and linen business left by her husband at his death. The artist's father, a partner in this successful family enterprise, had also, like others of his calling, a share in the administration of the cathedral. The mother is reported to have been very skilled in the art of embroidery. "The family lived a well-to-do, cultivated life; they were fond of music and owned a clavichord."

II. *Development to age 17.*

1. Interests. It was probably because Anthony displayed his disposition to painting so early, that upon the advice of a friend of his father, he was placed, at the age of 10, where he could pursue artistic studies.

2. Education. It is probable that Van Dyck received in his earliest years the usual schooling of a wealthy burgher's son, but how long he continued in school is uncertain. In his 11th year he was entered by the Dean as an apprentice of the guild of St. Luke at Antwerp. "At this time only Rubens was possible in Antwerp, and the young student learned to imitate and copy him in every respect."

3. School standing and progress. (No additional information.)

4. Friends and associates. Many engravers and painters were among the family friends with whom Van Dyck was early associated; Van Balem was his teacher, and Jan Brueghel, the younger, was his colleague and bosom friend.

5. Reading. (No record.)

6. Production and achievement. At the age of 14 Van Dyck painted a portrait of an old man that is still extant, and at 16 he was living and working independently in Antwerp. As evidence of his maturity at this early age, it is recorded that as "a person of independent means and position" he was allowed to plead his own case in a settlement of his grandmother's property. Apparently at the time when the artist was 16 or 17 years of age he was beginning to teach pupils of his own. His progress in art is shown by the fact

that a series of heads from his rapid pencil and brush were exhibited by a noted contemporary connoisseur and art-dealer; and it is clear that he was known among artists, for Rubens himself had visited his studio.

7. Evidences of precocity. (See II 6.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After entering Rubens' studio as an assistant, at the age of 18, Van Dyck rapidly perfected his style, and he was received in the Lucas Guild as master painter the following year. Many of his pictures from this period are hardly distinguishable from those of his master. At the age of 21, already a skilled portrait painter, Van Dyck spent some time in England at the invitation and in the employ of Charles I. In his 23rd year he went to Italy, where he studied for some years. His high position as an artist was there recognized, and he won the patronage of Cardinal Bentivoglio.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

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Knackfuss, H., *Van Dyck* (Tr. Dodgson), Bielefeld, Velhagen, 1899.

WILLIAM WILBERFORCE (1759–1833)

An English Philanthropist, Statesman, and Orator, Famous as an Opponent of the Slave Trade

AI IQ 120 AII IQ 130

I. *Family standing.* Wilberforce's forebears were people of property and of dignified standing in their communities. William's father was a merchant; his mother numbered among her relatives a leading banker, an Archbishop of Canterbury, and a Bishop of Winchester.

II. *Development to age 17.*

1. Interests. (No specific record.)

2. Education. At the age of 7, a "sickly and diminutive child" William was sent to Hull Grammar School. His second school was Wimbledon in Surrey, whither he was dispatched as a parlor boarder by an uncle who took charge of him after the death of his father. The proprietors of this school were catering chiefly to merchants' sons, "and they taught, therefore, everything and nothing." French, mathematics, and Latin are mentioned by Wilberforce as subjects studied. At this same time, while in his uncle's home and under the care of his aunt, young Wilberforce acquired "a familiarity with the sacred writings and a habit of devotion, the results of which were perceptible throughout the whole of his more mature life." But now his mother, hearing that her boy was being perverted to Methodism, placed him under the Rev. Baskett, master of Pocklington Grammar School. To him William became indebted for "some general knowl-

edge of polite literature . . . and an intimate acquaintance with the best dinner tables in that part of the country."

3. School standing and progress. When William was 7 years old and attending his first school, "so rich were the tones of his voice, and such the grace and impressiveness with which it was modulated, that his teacher would lift him on the table that his schoolfellows might admire and imitate such a model in the art of recitation." Little is known of the lad's progress at Wimbledon, but it is said that at Pocklington he became generally popular, and was especially admired for his singing. Although often idle, he did well in composition and learned much English poetry.

4. Friends and associates. (No specific record.)

5. Reading. (No specific record.)

6. Production and achievement. While still a schoolboy Wilberforce wrote several religious letters "much in accordance with the opinions he subsequently adopted"; and he contributed a letter to a York newspaper protesting against "the odious traffic in human flesh."

7. Indications of precocity. (See II 3 and 6.)

AI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* From his 18th to his 22nd year Wilberforce was in residence at St. John's College, Cambridge, studying little, and living a fast life with a group of merry fellows. At 21 he was elected to the House of Commons from Hull, and at 25 from Yorkshire as the result of a brilliant speech against the Unholy Alliance. At this time his political future already shone very brightly.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

Stephens, Sir James, *Essays in Ecclesiastical Biography,* New York, Longmans, 1907, Vol. 2, pp. 133–186.

Wilberforce, Robert, Isaac, and Samuel, *Life of Wilberforce, Written by His Sons,* 1838. (Five vols.)

JOHN WILKES (1727–1797)

An English Politician, Publicist, and Political Agitator

AI IQ 120 AII IQ 125

I. *Family standing.* Wilkes' ancestors were business men or farmers. His father was a prosperous distiller, jovial, lavish, and ambitious to rise in the social scale. His mother, a non-conformist, was distinguished by strength of will and at times by hot temper, although as a rule she was good-humored and tolerant.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Beginning when he was 7 years old, John attended a boarding school at Hereford, kept by a learned master who watched over his pupils with great care. From the age of 12 to 18

the lad studied under a clergyman. However, the instruction of this man can scarcely have furthered his pupil's progress, for he was a superficial pedagogue, a "morbid sophist . . . whose brain was enshrouded by the mists of theology."

3. School standing and progress. At Hereford John gained a fair knowledge of Latin and Greek. He must have been an excellent scholar, for a letter written to him by John Worsley after he left the school spoke not only of his "generous sentiments" but also of "that love of letters which I myself beheld the first dawnings of, and no mean advancement in, with so much pleasure."

4. Friends and associates. At Hereford he made many friends among his companions.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. It was early evident "that little John Wilkes had a brave spirit," and as he advanced in years "his cheery good temper and charm of manner won the hearts of all who knew him." "From the first he was his father's favorite, both on account of his spirit, and because of his keen sense of humor."

AI IQ 120 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* As a student at Leyden (aged 18 to 21) John was referred to as "the studious Wilkes," and during his stay there "he managed to gain some reputation as a conversationalist." He "learned a good deal of Latin, a fair amount of Greek, to converse in French with facility, to love liberty, and to make a graceful bow." He married at 22 an heiress ten years his senior with whom, unfortunately, he had nothing in common; and for the next few years he "combined the life of a rural squire with that of a man of fashion."

AII IQ 125 (Rel. coeff. of data, .43)

REFERENCES

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Bleackley, Horace W., *Life of John Wilkes*, London, Lane, 1917.

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JOSEPH ADDISON (1672–1719)

A Famous English Essayist, Poet, and Statesman

AI IQ 125 AII IQ 140

I. *Family standing.* Addison's father, a man of unusual character, was a clergyman who became a royal chaplain; he wrote religious treatises of sufficient note to be included in the encyclopedias. The mother was the sister of a bishop of Bristol.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Joseph was a weak, sensitive child who was hardly expected to survive infancy. He attended his first school at Amesbury before the age of 12, and afterward proceeded to Lichfield Grammar School, where he showed normal schoolboy enterprise. Later he entered the Charterhouse, and it was here that his friendship with Steele began. At 15 he entered Queen's College, Oxford.

3. School standing and progress. (See II 2.)

4. Friends and associates. Addison's friendship for Steele dates to the period before the poet was 15 years of age. (See II 2.)

5. Reading. (No specific record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* It is said that at college, Addison "was distinguished among his fellow students by the delicacy of his feelings, by the shyness of his manners, and by the assiduity with which he so often prolonged his studies far into the night." At 19 he held his first post as tutor to a young man of birth and fortune. Two years later he received the Master of Arts degree, and during the same year wrote his *Account of the Greatest English Poets* and his first verses, addressed to Dryden, who welcomed them. At this time he was intending, by his father's advice, to enter the Church.

During the following years, and before he was 26, Addison supervised a translation of Herodotus and wrote a number of critical essays, translations, and verses in both Latin and English. Verses in Latin, written at 25, won high patronage, and ultimately secured a royal pension for the young poet, who was now probationary Fellow at Oxford.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCES

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LUDOVICO ARIOSTO (1474–1533)

An Italian Poet

AI IQ 125 AII IQ 135

I. *Family standing.* The Ariostos, an ancient and noble family of Bologna, were soldiers, lawyers, and scholars, with scientific and literary interests. Ludovico's grandfather was governor of Reggio; his father was created by the emperor a count of the Holy Roman Empire; he held various important military commands. The poet's mother belonged to the petty nobility; she was the daughter of a physician and poet of local reputation.

II. *Development to age 17.*

1. Interests. It is probable that Ariosto's father frequently took the boy to the theatrical performances at the court of the Duke of Ferrara, since it is recorded that Ariosto often, in the absence of his parents, "dressed his little brothers and sisters in the most suitable clothes he could lay hands on, and made them come out of the rooms into the hall, reciting like stage players what he had invented for them." (See also II 5.)

2. Education. Of Ariosto's early schooling there is no record. When he was about 14, his father set him to study law, with the intention of making him a notary. But "never did he look at a book that belonged to the study of law, though, restrained by respect for his father, he dared not openly lay aside "what the latter desired him to learn." He says himself that when he was "at the age most disposed for poesy . . . my father drove me with goads and lances, not merely with spurs, to turn over texts and glosses, and kept me to that rubbish for five years."

3. School standing and progress. (See II 2.)

4. Friends and associates. Two friends are mentioned, beside the members of his immediate family: a cousin, Rinaldo de Francesco, a dashing and wealthy nobleman, older than Ariosto, and of very different tastes; and Pandolfo, another kinsman, of the same age as himself and devoted to literature. His friendship for the second continued through later years.

5. Reading. While supposedly studying law, Ariosto in secret consumed all his time "in reading the fables or romances of every kind that came into his hands."

6. Production and achievement. (No record.)

7. Evidences of precocity. (No specific record. But see II 1.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 17, Ariosto was willing to listen without an excuse or a plea for mercy to a tremendous lecture by his father on all his alleged misdemeanors, because it made such excellent copy for a comedy. At 18 he was chosen among others to recite comedies; at 19 he wrote an elegy, his earliest extant work. It is reported that he won much applause when, at 21, he recited an original Latin oration in honor of the prince. The four years before he was 26, Ariosto devoted to the study of the classics, to poetry writing, and to social life. His associates were men of noble rank and high position. On the death of his father, when Ariosto was 25, the young poet gave up his studies to care for his mother, brothers, and sisters.

AII IQ 135 (Rel. coeff. of data, .53)

REFERENCE

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JOHANN SEBASTIAN BACH (1685–1750)

A Famous German Composer and Musician

AI IQ 125 AII IQ 140

I. *Family standing.* The Bachs were musicians—organists, cantors, or town musicians—for successive generations. Johann's father, a town councillor and town musician, was a man of good understanding, gifted with art and skill, respected and listened to in his township. Of the mother it is reported only that she was the daughter of a furrier, and that she died when Johann was 9.

II. *Development to age 17.*

1. Interests. Bach was brought up in a musical environment. In his father's, and later in his brother's home, as well as at school, he was surrounded by enthusiastic and gifted musicians. The boy's interest in his art is shown by the long expeditions which he made on foot in order to visit musicians or to be present at musical festivals in a distant city. By gaining admission to the private performances of the Celle band, he had an opportunity of hearing French music.

2. Education. Bach was probably taught by his father to play on the violin before he was 9; after his mother's death, he lived in the home of his brother, who instructed him in music. From the age of 10 to 15 he attended the orthodox town academy where the curriculum included music in addition to theology, ancient languages, rhetoric, and arithmetic. From his 16th to his 18th year Bach attended the Lüneburg Academy of St. Michael where his musical development was considerably influenced by the musician Böhm, a "great musical genius."

3. School progress and standing. Bach appears to have passed through the regular course as far as the first class; and although musical study gradually encroached more and more upon his time, there is no indication that his scholastic duties were neglected.

4. Friends and associates. Bach appears to have been a favorite pupil of the young Cantor in the Academy. It is probable that the latter suggested to him and his fellow student Erdmann that they should join him at the new school to which he had been transferred. So great was the young musician's admiration for an elder genius, that he walked the long road to Hamburg several times to hear his teacher's master, "the great Reinken."

5. Reading. No specific record is preserved; but it is clear that Bach must have read many a musical work, in addition to the regular school requirements.

6. Production and achievement. Young Bach was restive under the instruction of his brother; he was irrepressible in his desire to advance rapidly and to undertake difficult work. In the choir of the school which he attended from his 11th to his 16th year he became one of the foremost singers. Spitta believes that three extant choral fugues and a clavier fugue belong to this period. At 15

Bach removed to St. Michael's School, Lüneberg, where, because of his musical proficiency, he became one of the select group of "Matins Scholars," and he was granted the second grade of salary. When, soon after, he lost his voice, he continued his musical activities as violinist, clavier-player, and organist.

7. Evidences of precocity. Because his brother refused young Bach the use of a certain musical work, the boy, aged 10, is said to have pulled the desired manuscript through the lattice of the shelf on which it was kept, and to have copied it entire by night. His only light, while performing this labor, was from the moon, and so the periods when the work could be carried on were limited and its completion required more than six months. Tradition adds that the boy's eyesight was permanently weakened by this performance.

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 18 Bach was appointed court musician in Weimar; a few months later he was invited to become organist in Arnstadt with an unusually large salary. Before he was 20 he had produced works of unmistakable genius; at 22 he became organist at Mülhausen, a city that prided itself on its musical tradition; at 23 he was appointed court organist at Weimar, with double his former income. From this time onward he devoted himself to his official duties and to musical composition.

AII IQ 140 (Rel. coeff. of data, .43)

REFERENCES

Spitta, Philipp, *Johann Sebastian Bach* (Tr. Bell and Maitland), London, Novello, 1899. (Three vols.)

Forkel, Johann Nikolaus, *Johann Sebastian Bach* (Tr. Terry), New York, Harcourt, 1920.

THÉODORE BEZA (1519–1605)

A Noted Theologian, the Successor of Calvin as Leader of the Reformed Church

AI IQ 125 AII IQ 140

I. *Family standing.* Beza's family were of old Burgundian stock. The father's kinsmen were persons of considerable prominence, and the father himself held an honorable and influential position as *bailli* of Vezelay. The mother, of noble descent, was a woman of unusual intellectual and moral endowment, as kindly as she was clever.

II. *Development to age 17.*

1. Interests. Beza's pronounced interest from his earliest years was in classical literature.

2. Education. He was educated "most tenderly," for he was a puny child of weakly constitution and for a long time he suffered untold agony from a skin infection. When sufficiently recovered from this ailment he began his studies under a tutor. At 9 he was sent to Orleans to the school of Wolmar, the great Greek scholar, and

there he remained until he was 16. From the age of 16 until he was 20 Beza attended the University of Orleans where he had planned to devote himself to the study of law, but where he was drawn instead to the study of the classics.

3. School standing and progress. Under Wolmar's instruction Beza and his companions acquired such a knowledge of Latin and Greek as has been rare at any period. (See II 2.)

4. Friends and associates. From his 10th year Beza was closely associated with his admired and beloved teacher, Wolmar, and at the University of Orleans he "had the closest intimacy" with all the most learned men of the university.

5. Reading. (No specific record. But see II 2 and 3.)

6. Production and achievement. (No specific record.)

7. Evidences of precocity. When he was scarcely out of the cradle, Beza so impressed a visiting uncle that the latter determined to adopt him, and this he did with the father's willing and the mother's reluctant consent.

AII IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* After completing four years at the University of Orleans, Beza continued the pursuits of the scholar outside its halls, refusing to follow his father's wish that he enter upon the practice of law. Before he was 20, he was "uncommonly learned for his age in classical literature," and he had produced a volume of Latin verses in the manner of Virgil, of Ovid, and of Catullus that won him much praise. Before his 25th birthday he had finished a treatise on the Salic law. Although he continued to hold two rich benefices, his interest was centered in study.

AII IQ 140 (Rel. coeff. of data, .43)

REFERENCE

Baird, Henry Martyn, *Theodore Beza,* New York, Putnam, 1899.

ROBERT BLAKE (1599–1657)

A Famous English Admiral

AI IQ 125 AII IQ 130

I. *Family standing.* The Blakes were members of the country gentry in Somersetshire, prosperous traders and landowners holding important municipal offices. Robert's father and grandfather were both men of recognized influence in the community and each in turn served as chief magistrate of Bridgewater. Of the mother it is recorded only that she was the daughter of a "man of property."

II. *Development to age 17.*

1. Interests. Blake appears to have shown some ambition for a classical education, and as he was the first of his race to show such a predilection, his father, "proud of his talents and his studies, resolved that he should have every chance of rising to eminence in his chosen walk that means and education could confer."

2. Education. Before his 16th birthday, Blake had attended the local grammar school, where he made "decent progress" in Greek and Latin. He appears to have learned something of navigation, shipbuilding, and the routine of sea-duties from his father or from his father's factors and servants. At 16 he was prepared for the university and at his own earnest desire proceeded to Oxford.

3. School standing and progress. (No specific record is preserved except as contained in II 2.)

4. Friends and associates. Blake entered Oxford with Reynolds, afterward Bishop of Worcester, and Earl, afterward Bishop of Salisbury.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At the university Blake applied for but failed to secure a scholarship, and later a fellowship. It is probable that he took the degree of B.A. at 18, that he then remained for a number of years of further study at college, and that he devoted himself thereafter to the management of the family property.

AII IQ 130 (Rel. coeff. of data, .20)

REFERENCES

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SIMON BOLIVAR (1783–1830)

A Famous Venezuelan General and Statesman

AI IQ 125 AII IQ 135

I. *Family standing.* Bolivar's father was a militia colonel, Don Juan Bolivar of Ponte, a member of the Spanish Venezuelan nobility. The family, who were proprietors of great tracts of land, were considered leaders in the community. Of the mother's family no record has been found.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. After the early death of Bolivar's father the boy was carefully educated under the direction of his mother by a tutor of strange ideas and habits but constant in his devotion to his pupil and afterward his intimate friend. At 15, on the death of his mother, the youth was sent to Madrid by his uncle and guardian and there his education was continued.

3. School standing and progress. (No specific record.) Bolivar's education was under the care of private tutors.

4. Friends and associates. Young Bolivar associated with men of action and thought in Venezuela, in Mexico (where he visited at the

age of 15) and in Spain. His ability appears to have been recognized by his associates.

5. Reading. (No record.)

6. Production and achievement. (No specific record.)

7. Evidences of precocity. It is reported that in his early youth Bolivar "gave evidence of a certain precocity and nervousness of action and speech which distinguished him as an enthusiastic and somewhat idealistic boy." When at 15 he visited Mexico City he had several conversations with the viceroy, who "admired his wit"; but the official became alarmed "when the boy came to talk on political questions and with an assurance superior to his age defended the freedom of the American colonies."

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 19 Bolivar visited Paris, where his favorite occupation was the study of political science and economics. Married at 19, the youth lost his beloved wife before he was 20; he then determined never to marry again, but rather to devote his life and energy to the study of the great problems of his country. He visited Spain, France, and Italy, "studying everything and informing himself of all the currents of public opinion." Upon his return to South America, he was engaged for four years (from 23 to 27) in managing his great estate.

AII IQ 135 (Rel. coeff. of data, .20)

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JOHN BRIGHT (1811–1889)

English Liberal Statesman and Orator

AI IQ 125 AII IQ 130

I. *Family standing.* John Bright was the son of a shrewd and dexterous Quaker weaver who had become successively bookkeeper, salesman, and finally owner of a cotton mill in Rochdale. The elder Bright was characterized at just, broad, liberal, and generous. The mother, who was said to possess "an excellent natural capacity," was the daughter of a respectable tradesman. Both parents were intelligent and philanthropic. Their ancestors included wool combers, serge weavers, and farmers, among whom were Quakers who had suffered imprisonment for conscience' sake.

II. *Development to age 17.*

1. Interests. Although his constitution was delicate and his spirit considered timid, Bright excelled at football, cricket, swimming, and marbles. At school (aged 10 to 12) he was regarded as independent

and somewhat pugnacious. At Newton (aged 13) he acquired a love of fishing. He was fond of dogs. At 14 and 15 he was said to be "more thoughtful than other youths at that age," and "often made quaint, mature, and wise remarks."

2. Education. "At an early age" Bright was instructed by a governess; at 8 he entered Mr. Littlewood's School in Towhead; at 9 he entered the Quaker school at Penketh near Warrington, but soon withdrew from it to attend the well-known school at Ackworth (also a Quaker establishment); thence he went at 12 to a York school, and at 13 to a school at Newton in Lancashire.

3. School standing and progress. At Mr. Littlewood's school, Bright exhibited no precocious talents, "but he possessed an aptitude for mental acquirements"; and the Master who preferred cultivation of the understanding to learning by rote "soon discovered the superior ability of his pupil." Although one of the youngest in the school, little Bright showed "tenderness of heart" and "firmness of purpose." At Ackworth school (aged 10 to 12) he studied the usual subjects. It was said to be difficult to command his attention but his comprehension was quick. At York he "always maintained a good position in the class with apparent ease but he did not otherwise distinguish himself"; and yet he was further advanced in classics than any but one. When Bright left school he had passed through the regular course which, however, included neither mathematics nor science.

4. Friends and associates. Bright was said to have been spirited and popular, but who his early associates were, other than members of the family and teachers, is not reported.

5. Reading. While he was engaged in his father's mill Bright (aged 15 to 25) studied daily from 5:30 A.M. until breakfast time. History, poetry, topics of the day, and statistics engaged his attention.

6. Production and achievement. A letter written at 15 indicates a boy's normal interests. Before he was 16 Bright left school and entered his father's mill where he soon showed proficiency in both the practical and the theoretical sides of his occupation.

7. Evidences of precocity. Having heard the story of the Peterloo Massacre, 8-year-old Bright wanted thoroughly to understand the whole movement toward political reform. He was called "The Thinker" by his family.

AI IQ 125 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* During the period from his 17th to his 27th year Bright's interests and activities were varied. An otherwise continuous period of service in his father's mill was broken twice when at 21 and 23 he visited the Continent. His first visit (to France) was brief; the second was an extended tour to Italy, Greece, and Palestine. Bright's political interest was apparently first aroused at 19; his first speech was on behalf of temperance. His ability as an orator developed rapidly and his eloquence and power did not pass unnoticed; a future career as an orator was predicted for him. When he was 21 he assisted in founding a literary society and

presided at its first meeting. At 25, on his return from the Continent, he delivered lectures on his travels.

AII IQ 130 (Rel. coeff. of data, .53)

REFERENCES

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GEORGES LOUIS LECLERC, COMTE DE BUFFON (1707–1788)

A Celebrated French Naturalist

AI IQ 125 AII IQ 130

(The first dated event in Buffon's life, after his birth, is a journey to England at 26.)

I. *Family standing.* Leclerc's father, a man of moderate fortune, was a councillor in the Parlement of Dijon. No further information with respect to members of the family has been found.

II. *Development to age 17.*

1. Interests. Buffon was allowed to choose his own vocation; he began to study law, but soon exhibited a marked predilection for the study of the physical sciences, and more particularly for mathematics.
2. Education. He was given an excellent education.
3. School standing and progress. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Buffon studied law at the Jesuit college of Dijon, and there he met and became the friend of a young Englishman, Lord Kingston, who was travelling with a cultured and broadminded tutor. Buffon with his father's consent joined his friend in his further travels and the party sojourned for some time in France, Switzerland, and Italy. When he was 25 Buffon succeeded to a considerable property and "from this time onward his life was devoted to regular scientific labor." (At 26 he translated Hales' *Vegetable Statics* and Newton's *Fluxions.*)

AI IQ 130 (Rel. coeff. of data, .11)

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Biographie Universelle.

PHILIP DORMER STANHOPE, 4TH EARL OF CHESTERFIELD (1694–1773)

An English Politician, Orator, and Writer, Famous as a Man of Fashion

AI IQ 125 AII IQ 135

I. *Family standing.* The family of Stanhope was ancient and distinguished. Philip's grandfather, the second Earl, was one of the most admirable of the name, his father the third Earl, one of the least so. For several generations the Stanhopes had devoted their energies to the forlorn hope of restoring the Stuarts. Philip's mother was the daughter of the famous Marquis of Halifax, a statesman and wit. His grandson closely resembled him.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Stanhope and his sisters, strangely neglected by their father, were cared for and educated by their grandmother. The young gentleman was trained by private tutors, who instructed him in the subjects which he was pleased to learn. He became proficient in languages, for he was a clever boy, but he remained sadly deficient in mathematics. He learned French very early from an old nurse and he was later instructed in history and philosophy by a French Huguenot clergyman.

3. School standing and progress. It is impossible to compare the grade of performance of young Stanhope with that of others of the same age, because his instruction was private; but it would appear that he excelled in the subjects in which he was interested.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 18 Stanhope was entered at Trinity Hall, Cambridge, where he lived for two years, a brilliant youth whose desire was to experience life fully in all its aspects. In the midst of many activities he acquired considerable learning and developed his gift for oratory. A year of travel on the Continent followed. At 20, he was appointed a "gentleman of the bedchamber" to the Prince of Wales; at about the same time he entered the House of Commons and made his first speech there just before his 21st birthday. His membership in the Commons continued until, upon the death of his father, Stanhope (aged 32), as Lord Chesterfield, entered upon his notable career in the House of Lords.

AI IQ 135 (Rel. coeff. of data, .53)

REFERENCE

Craig, W. H., *Life of Lord Chesterfield*, London, Lane, 1907.

JOHN DRYDEN (1631–1700)

A Celebrated English Poet and Dramatist

AI IQ 125 AII IQ 130

I. *Family standing.* Dryden's great-grandfather was another John Dryden, a friend of the great Erasmus. His grandfather was Sir Erasmus Dryden, who succeeded to an estate, was high sheriff of Northamptonshire under Elizabeth, and was created a baronet under James I. His father, Erasmus Dryden, acted as justice of the peace. On the maternal side Dryden's great-grandfather was Sir Gilbert Pickering, so conspicuous in his opposition to the Catholics that his murder was a part of the Gunpowder Plot. His maternal grandfather was a Protestant clergyman.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Dryden became a king's scholar at Westminster school under Dr. Bushby, "the most famous schoolmaster of the century."

3. School standing and progress. (No further record.)

4. Friends and associates. (No record.)

5. Reading. (No information other than that inferred from II 6.)

6. Production and achievement. At Westminster Dryden translated into English verse the third satire of Persius as a Thursday night task, and this was published when its author was 19, as was also an epistle in praise of a volume of religious verse by his friend John Hoddeson. Later he recalled the writing of many other similar exercises at Westminster.

7. Evidences of precocity. (No further record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* In his 20th year Dryden matriculated at Trinity College, Cambridge, where he was elected to one of the Westminster scholarships. At 22 he received the Bachelor's degree but did not leave the university for some time thereafter. It was at this period that his father's death left him an independent income of about 60 pounds a year. At 24 he was reading the classics, writing verses, falling in love and out again. At 26 he went to London "to set up for a poet" as "his head was too roving and active . . . . [for him] to confine himself to a college life."

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

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ALBRECHT DÜRER (1471–1528)

A Famous German Painter and Engraver, the Founder of the German School

AI IQ 125 AII IQ 135

I. *Family standing.* Dürer's father was a goldsmith and the son of a goldsmith, a man of recognized position and character. His mother, whose father was also a goldsmith, was benevolent, gentle, and beloved of all who knew her.

II. *Development to age 17.*

1. Interests. Taken into his father's workshop at about 13, young Dürer felt more inclination for painting than for the goldsmith's trade, and at the age of 15 he persuaded his father to apprentice him for a period of three years to the noted artist Wolgemut.

2. Education. Of himself Dürer says, "when (my father) saw that I was diligent in my studies, he sent me to school, and as soon as I had learned to read and write he took me away and taught me the goldsmith's trade." Albrecht's professional training was received from Wolgemut. (See II 1.)

3. School standing and progress. "Dürer, no doubt, learned little besides a few Latin words at school," but while serving his apprenticeship with Wolgemut, he followed "with rapid strides in the path pointed out to him by his old master."

4. Friends and associates. While Albrecht was still serving in his father's shop Wolgemut's apprentices "were probably his playfellows, and curiosity may have often enticed him into the famous studio."

5. Reading. Dürer informs us that he had read Vitruvius in his youth.

6. Production and achievement. A number of drawings have been preserved from the period of Albrecht's apprenticeship to his father. The drawing of himself at 13, and several other sketches exhibit remarkable ability with the pen for one of his age. Other early drawings are preserved that show Wolgemut's influence.

7. Evidences of precocity. (See II 6.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After finishing his apprenticeship at 18 Dürer travelled and studied for four years; he sketched, drew, and painted portraits. Water colors, pen-sketches, landscapes, and miniatures preserved from this period include a number of examples of the artist's best work. On returning home (aged 23) Dürer married and set up a studio.

AII IQ 135 (Rel. coeff. of data, .43)

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JOSEPH FOUCHÉ, DUC D'OTRANTE (1759 [?]–1820)

A French Revolutionist, and Later, under Napoleon, Minister of Police

AI IQ 125 AII IQ 130

I. *Family standing.* Fouché's father was a captain in the merchant service at Nantes, and the family belonged to the comfortable bourgeoisie. No information has been preserved concerning the mother and her family.

II. *Development to age 17.*

1. Interests. The only interests recorded were in scientific studies at school.

2. Education. At 9 Fouché was taken to the Oratorien college at Nantes to be trained to become a sea captain. There he is said to have disliked grammar, but he was attracted to arithmetic, physics, and the exact sciences.

3. School standing and progress. "As he had a keen intellect and an ambition which was already awakened, he threw himself into the study of mathematics and science with passion and with success. Science became such a passion with him that the head of the school marked him for science and philosophy rather than for the sea." This report refers to the period when Fouché was between the ages of 9 and 22.

4. Friends and associates. (No record.)

5. Reading. Fouché studied with enthusiasm the works of Pascal and the other scholars of Port Royal and the Jansenist literature.

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Because of his frail health, Fouché could not realize his hope of becoming a sea captain. The head of the school urged him to prepare for teaching, and so, having already received minor orders, he entered at 22 the Oratorien seminary in Paris, distinguished himself there in philosophy and mathematics, and was sent the following year as assistant teacher to the College of Niort. At 24 he became tutor at Saumur in charge of the fourth class, and a year later was promoted to teach the second class at Vendôme. At 34 Fouché came into prominence as a Jacobin fanatic.

AII IQ 130 (Rel. coeff. of data, .20)

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JOSEPH LOUIS GAY-LUSSAC (1778–1850)

A Distinguished French Chemist and Physicist

AI IQ 125 AII IQ 155

I. *Family standing.* Gay-Lussac's grandfather was a physician. His father was king's prosecutor and judge at Pont de Noblac. Of his mother and her ancestry no record has been found.

II. *Development to age 17.*

1. Interests. As a boy, Gay-Lussac was boisterous, turbulent, and very venturesome. On one occasion in his boyhood "he experienced such humiliation at being surprised in the very act of telling a falsehood" that he resolved never again to depart from the truth, a resolution said to have been religiously kept during the rest of his life. The Republicans tried to enlist the hearty youth of 15 in their ranks, but he proved that he was under age and so remained true to his father's cause.

2. Education. During the early days of the Revolution, while his father was imprisoned as a suspect, Gay-Lussac began the study of Latin under a priest who resided in Saint Leonard. Later his father, released from prison, devoted himself to the education of this loyal son.

3. School standing and progress. "That his taste for the noisy pastimes of youth might not interfere with his desire for performing his duties, he devoted a portion of the night to study, after playing all day with his comrades."

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Gay-Lussac's eager diligence continued; he attended successively two Paris schools and was especially coached by the director of the second. By a brilliant examination at 19 he gained entrance to the Polytechnic School, where he became one of the most distinguished of the scholars. In addition to performing his school duties, Gay-Lussac gave lessons, thus supporting himself independently of his family. At 22 he was privileged to be chosen Berthollet's laboratory assistant; at 24 he became assistant professor, often supplying his superior's place. Before he was 25 his first chemical paper had appeared. He was at this time beginning to be known as one of the most distinguished among the very able professors in Paris.

AII IQ 155 (Rel. coeff. of data, .60)

REFERENCE

Arago, François, "Eloge de Gay-Lussac" (in *Smithsonian Annual Report*, Washington, Government Printing Office, 1877, pp. 138–172).

CLAUDE ADRIEN HELVETIUS (1715–1771)

A French Philosopher and "Litterateur"

AI IQ 125 AII IQ 135

I. *Family standing.* Helvetius belonged to a family of distinguished physicians, originally refugees from the Palatinate. Both father and grandfather were men of great distinction. The father was court physician and councillor of state, a member of the Berlin, London, and Paris academies, and the author of a number of medical treatises. There is no record of the mother.

II. *Development to age 17.*

1. Interests. Young Helvetius' early fondness for fairy tales developed into a passionate love for the classics and later for philosophy.

2. Education. Private instruction, begun before he was 5 years of age, was followed by a course at the Collège of Louis-le-Grand (no dates).

3. School standing and progress. Helvetius distinguished himself for the brilliance and discrimination of his figures of speech. He seemed suddenly to have acquired a wonderful knowledge of men and things of ancient times and was passionately interested in the Greeks and Romans. His voluminous notes show with what care he studied the characteristic details, usages, and notable or unusual words in everything that he read.

4. Friends and associates. P. Porée, the brilliant humanist, was one of his teachers who took particular pains in instructing him.

5. Reading. The *Iliad* and Quintus Curtius are mentioned as being admired passionately. Locke's *Human Understanding,* he said, worked a revolution in his thinking.

6. Production and achievement. (No record.)

7. Evidences of precocity. It is said that Helvetius did not shine at all in the beginning of his studies, but he knew how to read and how to interpret texts.

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Helvetius studied under M. d'Armancourt, his maternal uncle and the *directeur des fernies* at Caen. From him he learned the principles of finance; but a profound desire for glory pushed the young student toward literature and before he was 23 he had composed verses and one tragedy. He was admitted (at 23) to the Académie des Belles-Lettres de Caen. Appointed the same year a "farmer general to the Crown" he acquitted himself scrupulously. The profits of his office were so great that he could meet all demands and yet live in splendid style. He possessed all of the social graces and was sought after in the best society; but his life was not devoted entirely to social enjoyment; he was thinking and studying and attempting to decide upon a suitable career. Philosophy especially attracted him.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCE

Keim, Albert, *Helvetius, sa vie et son oeuvre*, Paris, Alcan, 1907.

EDWARD JENNER (1749–1823)

An English Physician Famous as the Discoverer of Vaccination

AI IQ 125 AII IQ 145

I. *Family standing.* The Jenner family, of great antiquity in Gloucestershire and Worcestershire, produced several eminent men, among them Dr. Thomas Jenner, President of Magdalen College, Oxford. Edward Jenner's father, an Oxford M. A. and the owner of considerable property, was Rector of Rockhampton and Vicar of Berkeley. The mother's father was a clergyman of standing, a descendant of an honorable and ancient family. Edward's brothers, one of whom brought him up with paternal tenderness, also held church offices.

II. *Development to age 17.*

1. Interests. Before he was 9 Jenner made a collection of the nests of the dormouse. He spent the hours devoted by other boys to play, in searching for fossils which abounded in the neighborhood. At an early age (no date) he was apprenticed to a surgeon of Sudbury, near Bristol. It was at this time that he was greatly impressed by the statement of a country woman, that she could not take small-pox "because she had had cow-pox."

2. Education. Jenner attended the private school at Watton-under-Edge and at Cirencester. No date is given for his removal to Sudbury to train as an apprentice in surgery.

3. School standing and progress. At Cirencester he "made a respectable proficiency in the classics," and his taste for natural history showed in his school work at an early period.

4. Friends and associates. No names are recorded, but it is reported that Jenner's school life at Cirencester laid the foundation of friendships which continued throughout his life.

5. Reading. (No record.)

6. Production and achievement. (See II 2.)

7. Evidences of precocity. (No further record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Jenner's apprenticeship (at 20) to John Hunter had an important influence on his mind and character, and the return of Captain Cook from his world voyage (1771) gave him (aged 22) new inspiration. When on Hunter's recommendation Jenner had skilfully arranged and prepared the specimens that had been collected by Sir Joseph Banks, he was offered an appointment (at 23) as naturalist on Cook's second voyage (1772). At 24 he began private practice in his native town of Berkeley and about the same time began his endeavors to interest the medical world in the possibilities of vaccination. A scientific paper on the cuckoo is probably of this year, as are also the papers, preserved but not

published, describing many scientific experiments. Some of Jenner's varied interests appear in the specimens of verse, both serious and humorous, preserved from this period.

AII IQ 145 (Rel. coeff. of data, .60)

REFERENCE

Baron, John, *The Life of Edward Jenner, M.D.*, London, Colburn, 1838. (Two vols.)

JUSTUS LIEBIG (1803–1873)

A Celebrated German Chemist

AI IQ 125 AII IQ 165

I. *Family standing.* Liebig's forebears were peasants in the Odenwald, men who held positions of trust in their communities. His father was a dealer in drugs and colors, a quiet, industrious man, who built up a substantial business. The mother was an unusual woman, of sound practical common sense, who acted as her husband's business associate while she reared ten children.

II. *Development to age 17.*

1. Interests. At 12 Liebig's interests began to center in the study of chemistry. He read widely in chemical works, at the same time developing to a remarkable degree the ability to visualize experiments as he read about them. From 12 to 15 he carried on a vast amount of experimentation; he repeated the experiments of which he had read until he knew them by heart in their minutest details and could reproduce them mentally at will. His father's laboratory became his favorite resort. He watched the process of soap making and then reproduced it, with improvements, in his laboratory. He visited in the workshops of tanners, dyers, smiths, and bronze moulders, and became thoroughly familiar with their varied technics. After he had observed the making of fulminating silver by a quack doctor, a process in which he recognized the action of nitric acid and alcohol, he was able successfully to reproduce the experiment at home. When asked by the school principal on one occasion whatever would become of him, he responded that he wished to be a chemist. This created much amusement, as no one at that time thought of chemistry as a science to be studied. When he was 15 Liebig, who was then apprenticed to an apothecary, carried on experiments with explosives. It was perhaps because a piece of the roof was blown off in one of his experiments that he left the service of this master. At 16 Liebig experimented and studied at home for a year. Among other endeavors he attempted to prepare a certain green coloring matter, but his chief interest was, then and during the following years, in experiments with explosives.

2. Education. At 7 Liebig was prepared by a private instructor for entrance to the Gymnasium, which he began to attend a year later, entering with his 10-year-old brother. Ancient languages

became the *pièce de resistance* of the course. At 15 Liebig left school to become an apothecary's apprentice.

3. School standing and progress. Although he was at entrance two years below the regular age for his class, Justus completed Grade IV in the usual two years' time and was promoted as 23rd of 28. In the next grade he lost the two years he had gained, but was promoted as 17th of 27. From his 13th to his 16th year he seems to have remained in the second class without promotion; and during this period he was perhaps more than once reprimanded by the school principal for his lack of industry. It is interesting to note that Liebig's associate at the foot of the class was later imperial and royal court director of the Vienna Opera House: while the others were studying Greek and Latin this youth was composing music and Liebig was thinking out chemical experiments.

4. Friends and associates. (No specific record.) (See II 3 and 5.)

5. Reading. The 14-year-old boy fetching books for his father's use from the Court Library attracted the attention of the Librarian, who rewarded his evident interest by giving him free access to the chemistry library. Thus encouraged Liebig read eagerly and enthusiastically all the books in the collection. "For the contents," he said, "my 14-year-old head was like the stomach of an ostrich." Liebig later recalled from this library Macquer's *Chemical Dictionary* (32 volumes), Basilius Valentius' *Triumphal Car,* Stahl's *Philogistic Chemistry,* thousands of articles and discussions in the periodicals of Göttling and Gehlen, the works of Kirwan, and those of Cavendish. All of these he read before he was 18.

6. Production and achievement. (See II 1.)

7. Evidences of precocity. (See II 1 and 3.)

AI IQ 125 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At 17, and after he had completed the study of the books on chemistry in the Court Library, Liebig was sent to the University of Bonn where he followed the lectures of leading chemists and increased the interest of his fellow students by organizing a chemico-physical association among them. At 18 his first paper was published, soon to be followed by others. At 19, having received a traveling scholarship, Liebig went forthwith to Paris, where he received enthusiastic encouragement from Gay-Lussac, Humboldt, and others. After a year of intensive study he presented a thesis to the University of Erlangen, whose faculty granted him the Doctor's degree in absentia, upon the recommendation of his professors. At 20 Liebig became generally known to the chemical world by a significant chemical paper on mercury and silver fulminate, and an associate professorship at the University of Giessen was offered to the young doctor on the recommendation of Humboldt. During the next four years the youthful professor, whose students were for the most part older than he, was engaged in establishing the first experimental chemical laboratory in Germany. Students soon began to flock to his courses. Happily married at 23,

Liebig entered the same year upon the professorship which he held for 26 years in Giessen.

AII IQ 165 (Rel. coeff. of data, .75)

REFERENCE

Volhard, Jakob, *Justus von Liebig*, Leipzig, Barth, 1909. (Two vols.)

ABRAHAM LINCOLN (1809–1865)

The Sixteenth President of the United States

AI IQ 125 AII IQ 140

I. *Family standing.* The Lincolns were of English descent. The American branch of the family who had settled in the South were for the most part modest, thrifty, unambitious people. Lincoln's grandfather was an energetic frontiersman; his father a careless and inert one, mentally and physically dull and slow; he was a good carpenter but he would not seek work. Lincoln's mother was, remotely, of Quaker descent. Her immediate family were illiterate, superstitious, poor whites; she however was superior to her surroundings in education and in intellect.

II. *Development to age 17.*

1. Interests. Lincoln fished when he was scarcely more than 3, and chased hedgehogs before he was 7. Quick-witted and always ready with an answer, he began at 10 to exhibit deep thoughtfulness; he was inquisitive and apt to ask the first question.

He learned his letters so that he could read books; he learned to write so that he would have an accomplishment his playmates had not, then so that he could help his elders, and finally so as to copy what struck him in his reading; he learned to cipher in order to go into more congenial work than farming. He was quiet during playtime and fond of solitude. In all the intervals of his work he read, wrote, and ciphered incessantly. He was the life of the home circle, whose members recognized him as their superior in goodness and cleverness. No one had a more retentive memory; a good thing once read or heard never escaped him. His "investigating mind dug after ideas and never stopped until bottom facts were reached."

He was fond of swimming and hunting; a boy of courage who had few difficulties with the other boys. Preaching was a favorite activity during his early teens.

2. Education. It is said that Mrs. Lincoln took pains to teach her children what she knew and that she told them Bible stories, fairy tales, and legends. Before he was 7 Abe learned his alphabet and a little more at a country school. At 10 he attended school again for a short time. Meanwhile he learned the rudiments of carpentry and cabinetmaking from his father. When he was 14 his mother began to take an active interest in his education, for to her he seemed full of promise, although not as quick of comprehension as other boys. She arranged that he should be allowed to

study at home as well as at school. At night he read, or ciphered with charcoal on the fire shovel; he wrote on every available space.

3. School standing and progress. Lincoln is reported by his schoolmates to have been an unusually bright boy at school, one who made splendid progress in his studies, and indeed learned faster than any of his schoolmates. He lost no time at home and when he was not at work he was at his books. His powers of concentration were intense. He studied hard, often at night by the light of a log fire. He was at school early and attended to his studies; in consequence he was always at the head of his class. Long the champion speller of the district, he became something of an authority on astronomy also.

4. Friends and associates. At school Lincoln was chosen to adjust difficulties and because of his dry wit and good stories he was a favorite at social gatherings among the simple, rude, frontier people who were his associates.

5. Reading. When he was 14 and no longer attending school he kept up his studies on Sundays and on week days carried his books with him to work so that he might read while he rested. The scope of his reading was necessarily limited, but he read everything he could lay his hands upon; among others, *Aesop's Fables, Robinson Crusoe, Pilgrim's Progress,* a *History of the United States,* and Weem's *Washington,* and he read them over and over until he knew each one almost by heart. The Bible and *Aesop's Fables* he kept always within reach. He also read a Louisville paper regularly and at times for want of other matter would read a dictionary by the hour. From the books he did not own he took voluminous notes.

6. Production and achievement. As soon as he was large enough, Lincoln was put to work in the fields with his father. He learned to know his father's farm from line to line, and to carry on all of its activities. He drove the team, cut the brushwood, handled the shovel plough, wielded the sickle, threshed the wheat. Indeed he knew all the branches of farm work so well that he could be hired out to the neighbors when his father did not need his help. Some of his employers thought him lazy because he sat about reading or thinking, but there is no evidence to show that he studied during working hours. At 14 he wrote a number of essays or dissertations. He took an active part in school debates and frequently entertained his companions by repeating to them long passages from the books he had read or the sermons he had heard.

7. Evidences of precocity. (No further record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* When he was 17 Lincoln was able to attend school for a time. He studied every book he could lay his hands on. He tried writing simple verses, with some success, but he was prouder of his physical strength and his capacity to perform difficult manual tasks. Essays written by him on the American Gov ernment and on temperance won local praise. At 19 Lincoln with another youth successfully sailed down the river to New Orleans

with a load of produce, which was disposed of at a good price. Before he was 22 Lincoln made his first public speech, and his effort was commended by a local candidate.

At 22 a second voyage was made to New Orleans, where, it is said, the sufferings of the slaves made a deep impression. During the same year Lincoln entered business at New Salem. He became a candidate for the legislature, but was defeated. He served with honor in a campaign against the Indians. On his return from the war he commenced, in partnership, to run a store, but this venture did not pay. After a period of desultory work on the farm or in the store, he was appointed at 24 postmaster of New Salem, a position he held for four years. At 26, with the support of both Whigs and Democrats, he was elected to the State Legislature.

AII IQ 140 (Rel. coeff. of data, .75)

REFERENCES

Nicolay, John George, and Hay, John, *Abraham Lincoln,* New York, Century, 1890. (Ten vols.)

Tarbell, Ida M., *The Life of Abraham Lincoln,* New York, Lincoln Historical Society, 1900. (Four vols.)

Herndon, William H., and Weil, Jesse W., *Abraham Lincoln: The True Story of a Great Life,* New York, Appleton, 1892. (Two vols.)

Lamon, Ward Hill, *The Life of Abraham Lincoln from His Birth to His Inauguration as President,* Boston, Osgood, 1872.

Morse, John Torrey, *Abraham Lincoln,* Boston, Houghton, 1893. (Two vols.)

CAROLUS LINNAEUS (1707–1778)

A Celebrated Swedish Botanist and Naturalist, Founder of the Linnean System of Botany

AI IQ 125 AII IQ 145

I. *Family standing.* The paternal ancestors were peasants, but Linnaeus' father was a Swedish country clergyman "with a love of beautiful things of the plant world." "The strong character in that household was the mother," whose ancestors had been people of culture for at least three generations. It was her ambition to see her first-born inherit the pastorate of her husband, which had long been filled by members of her own family.

II. *Development to age 17.*

1. Interests. When Carolus was 4, flowers beyond all things were his chief delight; he wanted to know the names of all the familiar plants in his father's garden, and upon a picnic excursion nearly monopolized the pastor's time with questions of plant names. At 8 he had a garden spot of his own and showed much energy in collecting and planting all manner of wild flora.

2. Education. Linnaeus (aged 7 to 10) was educated at home by a tutor who taught him to speak, read, and write Latin. At 10 he was sent away to a Latin theological preparatory school at Vexio.

3. School standing and progress. His progress at Vexio appears to have been satisfactory. He entered the school a year younger

than was customary and was encouraged by his master to study botany. He was later remembered by one of his tutors as a favorite pupil.

4. Friends and associates. (No record.)

5. Reading. Between the ages of 11 and 18 Linnaeus acquired a number of scientific botanical works, which he studied assiduously.

6. Production and achievement. (See II 1.)

7. Evidences of precocity. As a child of 4, he was "active and intelligent beyond his years." (See also II 1.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* When at 17 Linnaeus passed into the college of Vexio he was advised to give up his university course because it appeared that Hebrew and Biblical learning failed to interest him. But Dr. Rothman, lecturer in medicine at the college, recognized his ability and took him into his own home, for a year giving him instruction in medicine, natural history, and physiology. At 20, Linnaeus entered the university at Lund, remaining for a year and winning the admiration of Dr. Stobaous, with whom he lived. The following year he entered Upsala and was able before long (at 23) to support himself by lecturing publicly in the Botanical Gardens. At 25 it was arranged by Rudbeck, Professor of Botany, that he should make a scientific expedition to Lapland. On his return late the same year he wrote his excellent *Flora Laponica.*

AII IQ 145 (Rel. coeff. of data, .60)

REFERENCE

Greene, Edward Lee, *Carolus Linnaeus,* Philadelphia, Sower, 1912.

JOHN LOCKE (1632–1704)

A Celebrated English Philosopher, One of the Most Influential Thinkers of Modern Times

AI IQ 125 AII IQ 135

I. *Family standing.* Locke's father came of a stable middle class family. Educated for the law, he made for himself a good position as a country attorney. He was "a man of parts," of "more than ordinary intelligence," actively interested in the political questions at that time rending the country; he served for a time as captain of a troop of volunteers in the army of Parliament. He strongly influenced his son by his severe, but reasonable, discipline and training. The mother left an impression of piety and affection.

II. *Development to age 17.*

1. Interests. Political and religious interests were stimulated through the occurrences of the time and by home discussion.

2. Education. Locke probably attended a local elementary school in addition to receiving parental instruction. At 14 he

entered Westminster School, at that time one of the three leading university preparatory schools attended by sons of the aristocracy and the professional class. Here the school course included Latin, Greek, Hebrew, Arabic, themes and extemporary verses and much memorizing. Both the course and the educational method were later condemned by Locke.

3. School standing and progress. On the basis of his conduct, general ability, and knowledge, and after passing a stiff examination in Greek, Latin, and grammar, Locke was "elected on the foundation"—that is, he was officially recognized, by the conferring of a school honor, as above the school average in attainment.

4. Friends and associates. None of Locke's school friends achieved distinction; however, they became respectable professional men.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 20, John Locke became a student of Christ Church, Oxford, where he continued to pursue learning during the next five years. Among his college friends was James Tyrell, later barrister and author of historical and legal works. Locke was probably a superior student under a strict university discipline. His literary achievement is evidenced by his contribution of poems in Latin and English to a volume presented to Cromwell on his victory over the Dutch. The barren and unprofitable course of study gradually alienated Locke and he became at last utterly disgusted with it.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

Bourne, H. R. F., *The Life of John Locke,* London, King, 1876. (Two vols.)
King, Peter, Seventh Baron, *The Life of John Locke,* London, Colburn, 1830. (Two vols.)
Fechtner, Eduard, *John Locke,* Stuttgart, Fromann, 1898.
Fraser, Alexander Campbell, *Locke,* Edinburgh, Blackwood, 1907.
Fowler, Thomas, *Locke,* New York, Harper, 1899.

NICHOLAS MALEBRANCHE (1638–1715)

A French Metaphysician, a Follower of Descartes

AI IQ 125 AII IQ 135

I. *Family standing.* The family of Malebranche was well known in Paris and Metz. During the ministry of Richelieu the father was appointed sole treasurer of five large farms. The mother was related to people of standing; her brother was a councillor of State and a viceroy of Canada. "She was a woman of rare intelligence and great virtue."

II. *Development to age 17.*

1. Interests. Before Malebranche was 16 "the feebleness of his health caused him to feel a disgust for this world, and as he did not expect to live long, he turned his attention toward eternity." "Poetry and oratory, the rudiments of which he had already learned, seemed frivolous to him and unworthy of occupying the attention of an immortal soul; but he was told that philosophy would teach him the great truths which he wished to learn, and this gave him a great desire to study that subject. Accordingly, when he was 16, as his health had somewhat improved, he entered the Collège de la Marche to study philosophy under the famous Peripatetic, M. Rouillard. But after a few days the young philosopher saw that he had been deceived. He found in philosophy nothing of greatness and almost nothing of truth—only subtilty, perpetual equivocation, and play with words."

2. Education. Because of a bodily infirmity, present from birth, he was not sent to school with his brothers, and "whether he gained or lost by this fact we do not know." At any rate his mother devoted herself to his training and he is said to have owed his excellent style to her teaching. (For an account of his entrance to college see II 1.)

3. School standing and progress. During Nicholas' early studies at home "it is certain . . . . that he overcame the first difficulties of science with an intellectual ease that was astonishing, and which aroused the jealousy of his brothers. His sweetness and patience soon overcame such feelings, however, and in this manner he triumphed over his first adversaries." At college, although disappointed in the study of philosophy, he still felt it was his duty to apply himself, and he did so with such success that he won the approval of his professor.

4. Friends and associates. (No record.)

5. Reading. (No additional record.)

6. Production and achievement. At college Malebranche sustained a thesis with great credit.

7. Evidences of precocity. (See II 3.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Disgusted with the fruitlessness of philosophical study, Malebranche entered the Sorbonne hoping to find truth in theology, but here again he was disappointed. It is reported that he received at 18 the degree of Master of Arts in the University of Stagire and that he took ecclesiastical orders about this time. At 22 he was offered a stall in Nôtre Dame, but his studious disposition, and the meditation occasioned by his mother's death two years before, led him to prefer a less worldly position, and he joined the Congregation of the Oratory. He devoted himself to intensive study, but without finding the satisfaction for which he hoped.

AII IQ 135 (Rel. coeff. of data, .20)

REFERENCE

André, P., *La vie du R. P. Malebranche,* Paris, Poussielgue, 1886.

AUGUSTE F. L. V. DE MARMONT (1774–1852)

A French Marshal

AI IQ 125 AII IQ 135

I. *Family standing.* Marmont's father was an army captain decorated at 28 for distinguished service; and it was this "very remarkable man" who devoted himself to the education of his son. The elder Marmont's interests were in sports, philosophy, and politics. The mother was an heiress with more common sense than wit.

II. *Development to age 17.*

1. Interests. As a child Marmont dreamed of glory and his taste for a military career developed early. At 13 Charles XII of Sweden was the hero whom he wished to imitate. He was fond of mathematics and history; but his three-fold wish was to excel in arms, literature, and love.

2. Education. Marmont's early education was directed by his father, who trained him in liberal thought and in outdoor sports. At home he was petted and pampered by his father, by an unmarried uncle, and by a childless aunt. At 15 he was sent to Dijon to prepare to enter the school of artillery. He passed the entrance examinations when about 16.

3. School standing and progress. At Dijon Marmont did fair work. His Latin was poor, but for mathematics and exact sciences in general he had taste and ability. When, probably at 16, he took his examination under Laplace, the geometrician's cold and severe mien so affected him that he was unable to say even his own name until a word of encouragement restored his self-possession.

4. Friends and associates. At Dijon young Marmont met Bonaparte. (No other associates beside his relatives are mentioned.)

5. Reading. In his youth Marmont read Necker's *Compte Rendu,* which expressed his father's views.

6. Production and achievement. At 15 the youth was commissioned second-lieutenant in the militia and entitled to wear a uniform.

7. Evidences of precocity. (No specific record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Marmont was at 17 a second lieutenant of artillery (of moderate political opinions); at 18½ he was in command of a company of artillery, engaged in actual warfare. It was a little later and before he was 20, that Marmont met Napoleon in Paris and was sent thence, at his own request, to the siege of Mainz. Napoleon had at this time been removed from the army, but on his reinstatement he called Marmont (aged 22) to his staff. In Napoleon's Egyptian campaign the latter served with distinction and at 24 was promoted general of brigade. In the following year he was councillor of state for the department of war and organized the artillery for the expedition to Italy. At 26 he

commanded the artillery at Marengo with great effect and for his services was made general of division.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

Coppee, Henri, *Preface to Translation of Marmont's Spirit of Military Institutions*, Philadelphia, Lippincott, 1862.

Sainte-Beuve, "Marmont" (in *Causeries du Lundi*, Tr. Trechmann, London, Routledge, 1909, Vol. 6).

JOHN NAPIER (1550–1617)

A Scottish Mathematician, Famous as the Inventor of Logarithms

AI IQ 125 AII IQ 125

I. *Family standing.* Most of the Napiers played a more or less important part in public affairs; one became burgess of Edinburgh, another "comptroller of the King's household" and foreign ambassador, and several received the honor of knighthood. With their honors they also gained lands, and Merchiston Castle became one of the strongest places in the neighborhood of Edinburgh. Sir Archibald, the seventh baronet of Merchiston and the father of John, fully maintained the repute of his ancestors for energy and sagacity. He was a "justice-depute" under the Earl of Argyll, and for more than thirty years was "master of the mint." He became a Protestant and several times sat in the general assemblies of the Reformed Church.

John Napier's mother was Janet, daughter of Sir Francis Bothwell and sister of Adam Bothwell, Bishop of Orkney, "known to history as an active agent in effecting the unhallowed union of Mary and the Earl of Bothwell."

II. *Development to age 17.*

1. Interests. At college Napier determined to "employ his study and diligence to search out the remnant mysteries of that holy book, the Apocalypse."

2. Education. It is not known where Napier received his early education, although from a letter of his uncle, written when the boy was 10, it is inferred that he was taught at home. At 13 he was sent to St. Salvator's College in the University of St. Andrews, whose head was Dr. Rutherford, the most distinguished teacher of the time in Scotland. But Napier took no degree. From this time until he was 21 there is no record. Napier may have studied abroad, as this was a common custom of the time with sons of Scottish nobles and gentlemen.

3. School standing and progress. Napier acquired a wide knowledge of classical literature, although probably not at St. Andrews. There he received an impetus to theological studies, under the influence of "the worthy man of God, Master Christopher Goodman."

4. Friends and associates. At college he "contracted a loving familiarity with a certain gentleman who was a Papist" against

whom he "burst out in continual reasoning" because of the "blindness of the Papists."

5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* There is no further record until Napier was 21, at which time he lived at Gartness, where his father possessed lands, and where he was soon engaged in building a spacious mansion. At 22 young Napier married Elizabeth, daughter of Sir James Stirling, his father's old friend. There is no further information until Napier at the age of 38 was chosen a member of the General Assembly.

AII IQ 125 (Rel. coeff. of data, .11)

REFERENCES

Napier Tercentary Memorial Volume (Ed. Knott), London, Longmans, 1915.
Horsburgh, E. M. (Ed.), "Napier's Life and Works" (in *Modern Instruments and Methods of Calculation,* Section A, pp. 1–17, London, Bell, 1915).

HORATIO NELSON (1758–1805)

A Celebrated English Admiral

AI IQ 125 AII IQ 145

I. *Family standing.* On his father's side Nelson came of a family of parsons, "commonplace men who did their duty and had not a spark of genius." His father was a plain country parson, pious, ponderous, grave, of weak physical constitution. His mother belonged to a family that included a number of persons of some note; her father was a clergyman of distinction.

II. *Development to age 17.*

1. Interests. Tales of his early childhood credit Nelson with fondness for out-of-door activities requiring unusual physical courage. It is said that at 12 he volunteered the wish to go to sea with his uncle; his ambition from that time was to be a seaman. Before he was 15 Nelson prided himself in fancying that he "could navigate his cutter better than any other boat in the ship."

2. Education. Before he was 12 Nelson had attended two grammar schools. From 12 to 14 he served under his uncle, Captain Suckling, on a guard-ship, whence he was sent on a merchant-ship to the West Indies to learn the elements of his profession as a foremast hand. When he had returned thence, a practical seaman, he turned his attention to navigation and gradually became a good pilot. Before he was 15 he was appointed to go on a polar expedition and at 15 he went to the East Indies, a three years' trip.

3. School standing and progress. Nelson had no formal schooling after he was 12. (For his progress in seamanship see II 2 and 6.)

4. Friends and associates. Captain Suckling and the captains of successive ships on which he served took notice of Nelson and gave him an opportunity to learn and to advance.

5. Reading. (No record.)

6. Production and achievement. Before he was 15 Nelson prevailed upon Captain Lutwidge, in charge of a North Pole expedition, to take him on as coxswain "to fill a man's place." Later he succeeded in winning appointment as the commander of a four-oared cutter with twelve men. At 15 he was possessed of the complete knowledge of an able seaman. On the journey to the East Indies (aged 15 to 18) Nelson's smartness and attention to his duties were soon noticed; he was appointed midshipman and frequently permitted to maneuver the ship. From being a frail little boy he had now become a stout, athletic sailor.

7. Evidences of precocity. (No specific record.)

AI IQ 125 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* The voyage to the East Indies proved so detrimental to Nelson's health that, in order to save his life, he was sent home before the completion of the cruise. At 18 he was appointed fourth lieutenant to a ship of 64 guns, and he enjoyed the complete confidence of his captain. After passing his lieutenant's examination at 19 he was appointed second lieutenant to a frigate of 32 guns and served with her a year, suffering again, the while, from ill health. A number of promotions followed and at 20 he became post-captain with a frigate which was markedly successful in capturing prizes. Then followed a voyage to the West Indies, where young Nelson distinguished himself in a campaign against the city of Granada; but afterward he was stricken down with fever and returned to England. At 23, on his recovery, he was given command of a small frigate and for two years he cruised in many waters, without any outstanding event occurring. His commander, Lord Hood, held him in high esteem for his knowledge of naval tactics. At 25 Nelson returned to England and was presented by Lord Hood to the King. After an unsuccessful love affair he left England again the following year in command of the "Boreas."

AII IQ 145 (Rel. coeff. of data, .75)

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JOSHUA REYNOLDS (1723–1792)

A Celebrated English Portrait Painter

AI IQ 125 AII IQ 125

I. *Family standing.* Both of Reynolds' parents belonged to families of professional and cultural superiority; his father was a university

man and the master of a free grammar school. His mother, "a shrewd woman," came of a family of squires and rectors.

II. *Development to age 17.*

1. Interests. All the Reynolds children were fond of drawing; the younger ones, having no paper and pencils, were allowed to draw with burnt sticks on the walls of a long passage way. Joshua's productions were the least promising (he was the youngest of the artists) and he was called the clown. A little later the boy became fond of literary composition, and had not his love for art prevailed it is probable he would have become an author, for the earliest accounts of him, as well as later ones, indicate that he was a thinker. Under a perspective drawing of a wall perforated by a window his father wrote, "This is drawn by Joshua, in school, out of pure idleness." But it was also his father who encouraged the boy's early interest in drawing. Joshua said at 16, when the choice of a profession was being made, that he would rather be an apothecary than an *ordinary* painter.

2. Education. Joshua was taught by his father, under whose instruction he acquired a tolerable amount of Latin. At 16 his parent considered whether Joshua should become an apothecary or a painter; for the former occupation the boy had already made some preparation.

3. School standing and progress. (No specific record. See II 2.)

4. Friends and associates. (No record.)

5. Reading. At 8 Joshua read with great avidity and pleasure *The Jesuits' Perspective,* which he had found by chance; he completely mastered the theory of this work. Reading Richardson's *Treatise on Painting* delighted him and influenced his artistic development.

6. Production and achievement. In his childhood Joshua is reported to have composed rules of conduct. His first attempts at drawing were made in copying several little things done by two of his sisters. Afterward he copied such prints as he met with among his father's books, especially the illustrations in Dryden's translation of Plutarch, and Catt's *Book of Emblems.* He attempted at 8 to draw the school at Plympton, a building elevated on pillars; his father said the result was "wonderful." From this the young artist proceeded to draw likenesses of the family and of friends with tolerable success. When not more than 12 he painted a portrait on a piece of canvas which was part of a boat sail. This, his first oil painting, is said to possess little merit. During the following years Joshua must have made some progress, for the painter Warmell, who had seen his work at 16, said he would rather take him as an apprentice for nothing than another for fifty pounds.

7. Evidences of precocity. (See II 1 and 6.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 Joshua was apprenticed for three years to Mr. Hudson, who was then the principal

portrait painter in England. Reynolds was, for a time at any rate, very happy with his master; but his apprenticeship was cut short before the appointed time, probably owing to jealousy on the part of the master. The young painter returned to his home, but soon was back in London, where his portrait of Captain Hamilton brought him, at 23, considerable notice. The death of his father occurred at this time and Reynolds returned to Plymouth where he remained three years. He executed a number of portraits, including two admirable likenesses of himself, which show his gradual emancipation from the style of his teacher, Hudson. At 26 Reynolds seized an opportunity to visit Italy, an event which proved to be a turning point in his career.

AII IQ 125 (Rel. coeff. of data, .43)

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MADAME DE SÉVIGNÉ (MARIE DE RABUTIN-CHANTAL) (1626–1696)

A French Epistolary Writer

AI IQ 125 AII IQ 135

I. *Family standing.* On the paternal side the Chantal family, although old and distinguished, had been *"gens d'epée"* except for an author of valuable memoirs. The grandfather, at one time governor of Semur, was rewarded for bravery in battle by being made *"gentilhomme ordinaire de sa chambre"* by the king. The father, a great duellist, is described as dashing, lovable, and witty, one of the most accomplished cavaliers in France. He is reputed to have had "an original and independent character." Madame de Sévigné's maternal grandfather, who was "one of the best and most honorable men of his time," was at one time a farmer but rose to become *"conseuler du roi en ses conseils d'Etat et Prive."*

II. *Development to age 17.*

1. Interests. Marie was always fond of reading. "She had the interests and tastes of a charming and witty young woman of the highest and most cultivated society. She danced well and had a taste for singing."

2. Education. For a year after her mother's death, when she was 7½, she was instructed by her maternal grandmother. At the age of 10 she was placed in the care of a devoted uncle, the Abbé de Livry, who gave her an excellent and unusual education. Indeed, the abbé appears to have been what she termed him, *"bien bon,"* and "posterity is to be congratulated that her faculties were allowed to expand under his honest and reasonable indulgence." From this

period Marie's tutors were two learned men of considerable reputation: Chapelain, who had excellent literary judgment, and Ménage, who was well versed in ancient and modern languages. At the age of 16 Marie was presented at the court of Anne of Austria and there she soon learned "the refinements which are required only in polite society."

3. School standing and progress. Marie learned Italian very thoroughly and she was also instructed in Spanish and Latin.

4. Friends and associates. No records are found of others than relatives, tutors, courtiers, etc.

5. Reading. (See II 2.) The Italian poets were always numbered among her favorite authors and the romances of Scuderi "were her earliest occupations."

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* After two brilliant years at the French court, Marie de Chantal married the clever Marquis de Sévigné, whom she loved devotedly in spite of his unfaithfulness to her. With her husband she continued to move in the scintillating intellectual court circles of the day. At 22, on the occasion of the birth of a son, her second child, Madame de Sévigné wrote to her cousin the first of her celebrated letters. After her husband's death in a duel, when she was 25, Mme. de Sévigné devoted herself to the education of her children.

AII IQ 135 (Rel. coeff. of data, .43)

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ANTHONY ASHLEY COOPER, EARL OF SHAFTESBURY (1621–1683)

A Noted English Statesman, Created First Earl of Shaftesbury in 1678

AI IQ 125 AII IQ 130

I. *Family standing.* Shaftesbury's paternal ancestors were of the first rank of gentry; his grandfather had been a member of one parliament, and his father, a baronet, had served in two. The maternal ancestry was even more distinguished than the paternal, for Shaftesbury's mother's father, a man of unusual character and

ability, had served many years as a clerk of the Privy Council. He was knighted because of the part he had taken in the expedition against Cadiz.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Before Cooper was 6½ his education began under the care of a tutor. From the age of 10 to 14 he was instructed by various tutors of whom one was an excellent instructor in grammar. At 15, "not an unusually early age" for those times, he entered Exeter College, Oxford.

3. School standing and progress. Cooper is said to have made "an unusual progress in learning." "At Oxford, his wit, affability, and courage gained him the good will of the University. He improved himself more by conversation than by study."

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. Cooper's grandfather grew very fond of the little "prating boy." After the grandfather's death (when Cooper was 6½) a great-uncle wrongfully attempted to gain possession of the inherited estates. When only 13 Cooper went in person to the king's attorney, to whom he represented his cause "with such pertness" that his case was undertaken by the attorney, a friend of the grandfather, without fee.

By his own account Cooper was the recognized leader of the freshmen class; but this was a military leadership rather than a scholastic one. He succeeded by his tactics in abating a number of evils to which the students had been subjected.

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 Cooper entered Lincoln's Inn as a law student. At 17½ he married the daughter of a distinguished family. The next year he was elected a member of Parliament, entering at 19, a procedure which, although technically unlawful, was yet not uncommon. At 22 he joined the royal cause in the Civil War and was commissioned colonel; later the same year he became governor of Weymouth and Plymouth Islands. At 23 he went over to the Parliamentarians for a cause not explained and was in command of the Parliamentary troops at the taking of Wareham; the same year he was commissioned field marshal general. At 24 he failed of election to Parliament. At 25 he was high sheriff for Wiltshire.

AII IQ 130 (Rel. coeff. of data, .20)

REFERENCES

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WILLIAM TECUMSEH SHERMAN (1820–1891)

An American General

AI IQ 125 AII IQ 135

I. *Family standing.* Sherman's ancestors were among the first colonists in America. His father was a judge of the Supreme Court; his mother was a "plucky woman" descended from one of the historic families.

II. *Development to age 17.*

1. Interests. It was said of Sherman that when he was at West Point he was "a healthy, affectionate boy, already committed loyally to his profession." His interests covered a range from painting to farming.

2. Education. Between the ages of 9 and 16 Sherman attended the academy at Lancaster; at 16 he entered West Point.

3. School standing and progress. (No record. See II 1.)

4. Friends and associates. Sherman was adopted, upon the death of his father, by the Hon. Thomas Ewing, a man who achieved a national reputation as lawyer and statesman. It was Ewing who secured Sherman's appointment to West Point.

5. Reading. (No record.)

6. Production and achievement. At 14 Sherman was rodman on a canal survey.

7. Evidences of precocity. (No record.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 19 Sherman stood fourth in the engineering class and sixth in geology, rhetoric, and moral philosophy. At 20 he graduated from West Point ranking sixth in a class of 43. At 21 he was made first lieutenant, having attained in seventeen months a rank "which requires generally five to eight years of service." During the years from 20 to 25 Sherman's interests were not limited to the military profession; he studied painting and read law as well.

AII IQ 135 (Rel. coeff. of data, .60)

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JONATHAN SWIFT (1667–1745)

A Celebrated English Satirist and Man of Letters

AI IQ 125 AII IQ 130

I. *Family standing.* Swift's grandfather was Thomas Swift, vicar of Goodrich, distinguished for his loyalty to the king during the

Civil War. He invented warlike contrivances to annoy the Roundheads. Swift's father had a tolerably good understanding. On the maternal side, Swift's grandmother was Elizabeth Dryden, a niece of Sir Erasmus, grandfather of John Dryden. His mother, who was very exact in all the duties of religion, was a woman with an "easy and contented spirit" and a sense of humor.

II. *Development to age 17.*

1. Interests. When Jonathan was at school, the Latin words, *"Mi dux et amasti lux,"* struck his fancy and aroused a taste for the rhymed Latin-English in which he later indulged. When he was 15 his interest in poetry was unusually strong, as is evidenced by his picking out an extraordinary strain in Cowley's love verses. In school he neglected his academic studies, for some parts of which "he had no relish by nature," and turned himself to reading history and poetry.

2. Education. During the first three years of his life, Swift was in the care of a nurse who was "so careful of him" that before he was returned to his mother, at the age of 3 or 4, he had learned to spell. Between the ages of 6 and 14 he attended a grammar school, and at 14 he entered the University of Dublin.

3. School standing and progress. In college (aged 14 to 17) Swift was "so discouraged and sunk in his spirits" "by the ill treatment of his nearest relations," who (according to his own account) "gave him the education of a dog," that he too much neglected his academic studies. When the time came (at 18) for taking his degree of Bachelor of Arts, "although he had lived with great regularity and due observance of the statutes, he was stopped of his degree for dullness and insufficiency." He was defective in two out of three subjects in the usual terminal examinations. However, a study of the examination roll of the 89 students examined in the same subjects reveals that Swift "compares favorably with the best" in the list, excepting only two names. The degree was finally granted but without distinction.

4. Friends and associates. (No record.)

5. Reading. (No information other than that given in II 6.)

6. Production and achievement. At the age of 3 Jonathan could read any chapter in the Bible.

7. Evidences of precocity. (See II 2 and 6.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* After taking his degree (B.A.) at 18 Swift continued at college, where, before he was 21, he "had a mass of general reading in nearly every department of philosophy and letters, seldom equalled in its range and extent." But he was at least once admonished publicly (with six others) for "notorious neglect of duties and frequenting the town." At 22 he served as amanuensis to Sir William Temple, a relative of his mother, and at the end of the same year his patron recommended him for a Trinity

College fellowship. (The result of the recommendation is not recorded.) After another period with Temple, Swift was graduated M. A. at Oxford at 24.

Swift's first literary effort, a paraphrase from Horace, was written before he was 25, and was followed immediately by much other writing. It is said that Dryden remarked to Swift at this time, "You will never be a poet."

At 25 Swift represented Temple (but without success) on a political mission.

AII IQ 130 (Rel. coeff. of data, .53)

REFERENCES

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JACQUES-AUGUSTE DE THOU (1553–1617)

A French Historian and Statesman

AI IQ 125 AII IQ 135

I. *Family standing.* Thou's paternal grandfather was president of the Parlement of Paris; his paternal grandmother was granddaughter of a chancellor of France; his uncles in the Thou family were, respectively, bishop of Chartres and "a magistrate of unusual genius and incorruptible honesty," who was "*conseiller-clerc*" in the Parlement of Paris. His father, Christophe de Thou, was first president of the same Parlement and a man of literary interests. Thou's mother was a near relative of Chancellor Olivier and granddaughter of Denise de Ganay, sister of the chancellor of the same name.

II. *Development to age 17.*

1. Interests. Although a delicate child, Thou was "always opposed to laziness." "He showed an aversion to amusements and the pleasures which usually occupy children of his age, and devoted all his attention to painting"—one of his most decided interests. He copied the engravings of Dürer so correctly, his memoirs tell us, that he learned to form the letters of the alphabet before he could read.

2. Education. At 10 he attended the Collège de Bourgogne, where he was instructed by three celebrated French philosophers; he learned the elements of arithmetic and geometry, and he was especially drawn to the sciences.

3. School standing and progress. Since his health did not permit very arduous application to study, he was allowed to follow his own inclinations.

4. Friends and associates. (No specific record.)

5. Reading. (No specific record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (See II 1.)

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Thou studied at Valence with Jacques Cujas and here began a lasting friendship with the great scholar, Joseph Scaliger. At 18 Thou received minor orders and succeeded his uncle as canon of Nôtre Dame; but, not content with books, he wished to know men and the world. At 20 there began for him an interesting period of travel in Italy and France where he became a follower of Paul de Foix and from this time dates his friendship with D'Orsat, later cardinal. At 25 Thou was received as *"conseiller au parlement,"* and thereafter he fulfilled the duties of his office satisfactorily, although he had little interest in them.

AII IQ 135 (Rel. coeff. of data, .20)

REFERENCE

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DIEGO RODRIGUEZ DE SILVA Y VELASQUEZ (1599–1660)

A Celebrated Spanish Painter

AI IQ 125 AII IQ 140

I. *Family standing.* The Silvas were a family with a long and honorable record; they did not lack means and always lived as noblemen. The painter's father acquired a decent competence by following the legal profession. The mother's parents were both members of the lesser nobility in Seville.

II. *Development to age 17.*

1. Interests. Diego at school turned his copy-books into sketch-books.

2. Education. At the grammar school he made good progress in languages and philosophy until he reached the age of 13, when his parents determined to let him give up his other studies and follow his decided talent for painting. His first painting teacher was Francisco Herrera, the first Spanish artist to throw off the timid conventional style and adopt the free bold manner which was to become characteristic of the painting of Seville. After a year with this artist, Velasquez continued his studies for five years with Francisco Pacheco, learning a little from his master's teaching but much more through self-instruction.

3. School standing and progress. Young Velasquez showed a decided talent for every branch of knowledge. His kindred genius soon enabled him to understand and acquire Herrera's methods of execution, and in Pacheco's studio he learned all that his master himself knew.

4. Friends and associates. (No further record.)

5. Reading. (No record before 19.)

6. Production and achievement. While studying with Pacheco, Velasquez discovered that nature herself is the artist's best teacher, and industry his surest guide to perfection. He kept a peasant lad always with him as a model, and from him he executed many studies of heads, grappling with every difficulty of expression; he devoted himself to still life also in order to acquire facility and brilliancy in coloring. Then came a period when he studied subjects of common life found in rich and picturesque variety in the streets and on the waysides. The celebrated *Water-carrier of Seville, Two Young Men at a Meal, The Vintage, The Steward, The Musicians, The Breakfast,* and the *Old Woman Preparing an Omelette* were executed before the artist was 19.

7. Evidences of precocity. "His quick intelligence gave his parents a lofty idea of his gifts."

AI IQ 125 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Among Velasquez' first religious pieces were the *Immaculate Conception* and *St. John the Evangelist,* which were painted, probably, when the artist was 18, for the Calceato Friars. At Pacheco's house the youth came in contact with men of good taste, intellect, and refinement, and listened to their discussions on art, science, and letters, and especially poetry, for Luis de Gongora was a visitor. In the master's rich supply of pictures, statues, and books and in his well chosen library the youth found additional sources of stimulation and instruction. Books on art, anatomy, perspective, and architecture were his special interest; but he also mastered Euclid's *Geometry* and Moya's *Treatise on Arithmetic.*

Velasquez' first dated picture is *The Epiphany,* painted when he was 20. At the age of 23 the young artist went to Madrid with letters of introduction to gentlemen and patrons of art there who were instrumental in procuring him admission to all the royal galleries. Velasquez spent some months studying at the Prado and the Escorial. When, in the following year, Philip IV saw a portrait of Fonseca by Velasquez, he himself decided to sit for a life-size equestrian portrait. The resulting work met with such approval that Velasquez was at once engaged as court painter and the expenses of bringing his family to Madrid were paid by the king. At 25 the artist painted another equestrian portrait of Philip IV, "one of the finest portraits in the world." Another and very different picture of this year is *Los Bebedores,* which "for force of character and strength of coloring has never been excelled, and its humor entitles Velasquez to the name of the Hogarth of Andalusia."

AII IQ 140 (Rel. coeff. of data, .20)

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SIR ROBERT WALPOLE, EARL OF ORFORD (1676–1745)

A Noted English Statesman

AI IQ 125 AII IQ 130

I. *Family standing.* Among Walpole's paternal ancestors were a number of persons of property and position. Both grandfather and father sat in Parliament; the latter, who was also a militia officer, was "a jolly old squire of Whig politics who revelled in outdoor sport and the pleasures of the table." The mother was the only daughter of Sir Jeffery Burwell.

II. *Development to age 17.*

1. Interests. In his boyhood "Robert cared little for books and subjects which can be learned from books, . . . but he was precociously fond of an argument, and full of ready humor."

2. Education. Up to the age of 14 Walpole received his preparatory training at a private school at Massingham, and from 14 to 19 he studied at Eton.

3. School standing and progress. At Eton he was at first "naturally indolent, and disliked application," but the emulation of a public seminary, and the exhortations of his father, finally overcame the original inertness of his disposition and before he quitted the school "he had so considerably improved himself in classical literature as to bear the character of an excellent scholar. His talents for oratory began to develop themselves at a very early period." A schoolmaster, hearing later that several former Eton scholars had distinguished themselves for their eloquence in the House of Commons, remarked, "But I am impatient to hear that Robert Walpole has spoken, for I am convinced he will be a good orator." Walpole is said to have been, at Eton, superior to his future political enemy, St. John, "quicker in brain," and "readier in tongue"; an enmity existed between the two even then.

4. Friends and associates. (No record.)

5. Reading. At Eton Walpole developed a fondness for the works of Horace.

6. Production and achievement. (No record.)

7. Evidences of precocity. (See II 1 and 3.)

AI IQ 125 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Walpole attended Cambridge from the age of 19 to 21, studying scarcely more than he had at Eton. He was withdrawn by his father when, upon the death of two older brothers, he became the family heir. He then lived the life of a country landholder until after his father's death, whereupon at 23 or 24 he was nominated to succeed the latter in Parliament; he married at 23. At 25 he went to Parliament to represent a more important constituency than his earlier one.

AII IQ 130 (Rel. coeff. of data, .43)

REFERENCES

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GEORGE WASHINGTON (1732–1799)

A Famous American Soldier and Statesman; the First President of the United States

AI IQ 125 AII IQ 135

I. *Family standing.* Washington's parents belonged to the gentry; both were members of successful, thrifty families of property and standing. The father was kindly and affectionate, but absorbed in his business affairs. The mother was a woman of strong sense, imperious, not brilliant, but capable.

II. *Development to age 17.*

1. Interests. Washington was fond of outdoor sports; he could outwalk, outrun, and outride any of his companions, among whom he was recognized as a leader. When about 14 he thought of going to sea, but the plan was given up and he returned to his mathematics and mechanical drawing. The same year he fell deeply in love. He began, between 14 and 16, to write verses to the first lady of his affections, and later to another. Washington liked to draw or caricature; he attended (at 16) a singing school; he engaged also in sword or fencing practice.

2. Education. At an early age (between 3 and 7) Washington learned the alphabet and writing; at 7 he attended his first school; at 11, after his father's death, he attended a second school near the home of his step-brother with whom he lived. Here he received "a fair common school education" with some mathematics, but no foreign languages except, perhaps, the rudiments of Latin. He learned to write a fair bold hand and to make geometrical figures and notes of surveys with neatness and accuracy; but he was never a good speller. At 15 or 16 he seems to have taken lessons from the licensed county surveyor.

3. School standing and progress. Washington was usually studious; he was remembered later as industrious and assiduous at school.

4. Friends and associates. George's half-brother Lawrence and Lord Fairfax, both mature men of high standing, valued the boy's ability and believed him a youth of promise.

5. Reading. Mather's *Young Man's Companion,* a compendium of information on a wide variety of subjects, was a favorite work. When Washington was between 10 and 14 he studied it carefully and transcribed much of its material, especially taking to heart the rules of conduct. At 16 he had access to a library, and there he read the history of England and the essays of the *Spectator.*

6. Production and achievement. At 15 Washington became a

professional surveyor. A number of his surveys, made between the ages of 15 and 19, are preserved, and these are described as "marvels of neatness and careful drawing." The responsible business of surveying the Fairfax estate was entrusted to the youthful engineer at 16. A diary kept at this period gives a singularly objective account of his experiences.

7. Evidences of precocity. (No specific record.)

AI IQ 125 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Washington's service as surveyor to Lord Fairfax lasted until his 19th year. The work was hard and the youth was exposed to considerable hardship; his confidence, carefulness, and industry developed. Lord Fairfax was pleased with his work and on its completion obtained for him a post as public surveyor.

Friction began to develop at this time between the French and the British, and in anticipation of war to come, George was trained by his brother in martial arts and exercises. At 21 George was appointed adjutant general and major and detailed to warn the French not to trespass on English preserves. On this journey he was able to win the allegiance of the Indians, and he returned with a valuable report on the French forces.

At 22 Washington was appointed lieutenant-colonel of a Virginia regiment, and during the tenure of this appointment was noted for his coolness and his energy. Although a first successful encounter was followed by a forced surrender to the French, Washington was considered a courageous and gallant soldier, and on the conclusion of the campaign he was appointed (aged 23) colonel on Braddock's staff.

In the same year he distinguished himself by his bravery in further encounters with the French, and he showed by his advice, which was, however, not accepted, a grasp of conditions essential to success. At the conclusion of the campaign he made a trip to Boston, where he enjoyed the gaiety of city life for a season. At 25 he was appointed chief of the forces for the defense of Virginia, and in spite of stupidity and inefficiency on the part of the government, he carried out his duties for three years with prudence and skill. His reputation as a military commander was firmly established.

AII IQ 135 (Rel. coeff. of data, .75)

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CHAPTER XVII

CASES RATED AT AI IQ 130 TO 140

HONORÉ DE BALZAC (1799–1850)

A Celebrated French Novelist

AI IQ 130 AII IQ 145

I. *Family standing.* Balzac's father, who held a high position in the military *commissariat* in 1814, was descended from peasants, small land owners, and day laborers. He was studious and an original thinker, the author of numerous pamphlets on philanthropic and scientific questions. The mother, a distinctly practical woman of strong character and many gifts, was quite unable to understand her son's dreams and ambitions. At the time of Honoré's birth his parents were in comfortable circumstances, and of good social repute.

II. *Development to age 17.*

1. Interests. Balzac's interests were literary from a very early age; he composed juvenile comedies before he was 8 and was passionately devoted to mature reading during his school days at Vendôme. At 14 he confided to his sister and brother, "You shall see! I am going to be a great man!"

2. Education. After receiving his first instruction from a nursery governess, he attended the principal day-school in the town. From the age of 8 to 14 he attended the college school at Vendôme, where "the school life was semi-monastic with a discipline of iron"; the pupils never left its walls until their course of study was ended. A tutor was supposed to give Balzac special lessons in mathematics, but by tacit understanding the teacher paid no attention to the pupil, who spent the time thus left free in reading. After leaving Vendôme, Honoré attended successively an institution at Tours and two establishments in Paris.

3. School standing and progress. Though he showed no aptitude as a scholar, Balzac was still very young when he began to make "remarks or answers of singular penetration and meditative wisdom"; but he was seldom successful in the competitive examinations, and accordingly received from his parents more reproaches than praise.

4. Friends and associates. (None are mentioned specifically.)

5. Reading. Before he was 8 Balzac read with enthusiasm fairy stories whose dramatic endings made him weep. During his school days at Vendôme "no book seemed to him too austere nor too repellent nor too obscure for his youthful understanding." He read widely in religion, chemistry, physics, history, and philosophy, and even developed a special taste for dictionaries.

6. Production and achievement. As a little lad less than 8, he "manifested a certain inventiveness in improvising baby comedies which had more appreciative audiences than some of his maturer stage productions." While at school in Vendôme he began a metaphysical composition entitled "Treatise of the Will," which was, however, confiscated and never restored to him. Between the ages of 15 and 17 he composed for an examination the speech of Brutus' wife after the condemnation of her sons, which, according to his sister, exhibits his characteristic energy and realistic presentation.

7. Evidences of precocity. In his autobiographical *Louis Lambert,* Balzac described his prodigious memory and power of assimilation when he was a schoolboy at Vendôme: "his eye would take in seven or eight lines at once, and his mind would grasp the meaning with a velocity equal to that of his glance." "His memory could . . . retrace the progress and entire life history of his mind from the earliest acquired ideas down to the latest ones." (See also II 3.)

AI IQ 130 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Balzac continued to cherish ambitious hopes, while his father made practical plans for him. For three years (17 to 20) the youth served a law apprenticeship, finding time, however, to write both prose and verse, but upon receiving his notary's license (at 20) he refused to become a practicing lawyer. After a year of incredible hardship in a garret, during which he produced nothing successful, he returned home and entered upon a period of enormous productivity. While the novels of this period are not in any way to be compared with his later masterpieces, being frankly "hackwork," he wrote within five years (21 to 26) more than 31 volumes of romantic novels, of which thirteen were published at the time, as well as a number of excellent pamphlets.

AII IQ 145 (Rel. coeff. of data, .75)

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ROBERT BURNS (1759–1796)

A Famous Scottish Lyric Poet

AI IQ 130 AII IQ 130

I. *Family standing.* The Burns family had been farmers for four generations; but the grandfather was interested in education, and, with some of the neighboring farmers, built a schoolhouse for the children. The father was a peasant and a saint of the old Scottish

stamp. He understood men, but his temperament did not make it easy for him to get along with them. The mother was a peasant girl of humble birth and of no education, but very sagacious.

II. *Development to age 17.*

1. Interests. Favorite pastimes of Robert's youth included listening to the weird tales and strange legends of an old neighbor-woman, reading every book he could lay hands upon (see II 5), and learning French (see II 2). Interests like these absorbed his attention when he was free from the hard manual toil of the farmer's day.

2. Education. At the age of 5 Burns was sent to a little school at some distance from his home, which he attended until, a little later, his father and some others established a school near at hand. Here the textbooks included the Bible, the spelling book, Mason's *Collection of Prose and Verse,* and Fisher's *English Grammar.* After the schoolmaster left his charge, when Robert was 9, the Burns boys were instructed by their father, who tried to give them some idea of geography and history and provided also for their reading works on astronomy and natural history. When Robert was 13 his father became concerned over the boys' poor writing, and so the two brothers were sent to school for the summer term. At 14 Robert received a brief course of training from his former teacher while visiting him for a few weeks in the town. Some years later he concluded his schooling with a final summer term. At 14 he acquired a little French from his master, who was himself learning it. Later he continued the study without instruction, reading first *Télèmaque* and later, after a little further help from an interested country gentleman, various French prose writings. He was advised to learn Latin in the same way, but this proved too dry and the attempt was given up. Young men of education took an interest in the lad and gave him books.

3. School standing and progress. Burns's teacher said that Robert and his brother made rapid progress in reading and tolerable progress in writing. "In reading, dividing words into syllables by rule, spelling without book, parsing sentences, etc., Robert and Gilbert were generally at the upper end of the class, even when ranged with boys by far their seniors." They committed to memory hymns and other poems with great facility and they soon learned to make prose paraphrases, but neither had an ear for music. At first Gilbert appeared to exceed Robert in imagination and wit, while Robert was grave, serious, contemplative, and, before he was 10, "a critic in substantives, verbs, and particles."

4. Friends and associates. Burns's teacher, Mr. Murdoch, was also his valued friend, exerting upon the pupil perhaps a greater influence than any beside his parents. Robert's social disposition knew no bounds; his friends included both commoners and gentry.

5. Reading. The two books which gave young Robert the greatest pleasure were *The Life of Hannibal* (read at 9) and *The History of Sir William Wallace* (read somewhat later). For a time these were his only books, outside of school, and he read and re-read

them. Before he was 10 he heard *Titus Andronicus* read aloud, which so injured his sensibilities that he cried out that he would burn it, if it were left there—although the master had brought it to him as a gift; the *School for Love* was then left in its place. At 9 the lad read with avidity the books his father could obtain, such as the history of the Bible, popular scientific works, or an arithmetic. A collection of the letters of eminent men was sent by an uncle. At 13 Robert read his first novel, a volume of Richardson, and a volume of English history. At 14 he read Pope's works and some other poetry, almost the first that he had seen.

6. Production and achievement. Burns's early activities were varied: he assisted at 13 in threshing the corn, and became, at 15, the principal laborer on his father's farm. He first committed "the sin of rhyme" at 14, in composing that charming little song *Handsome Nell;* and he became enough of a debater and disputant at about the same time to arouse a hue and cry of "heretic."

7. Evidences of precocity. Before he was 7 Burns was noted for a retentive memory, a stubborn, sturdy something in his disposition, and an enthusiastic "idiot" (childish) piety; but at school his teacher never guessed that he was to be a poet. His quick acquisition of French at 14 was considered unusual, and brought him to the notice of people in the town.

AI IQ 130 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Burns wrote of his life on the farm at Mt. Oliphant as characterized by "the cheerless gloom of a hermit with unceasing moil of a galley slave." The family condition was bettered on the whole by removal to Lochlea, when Burns was 18, yet the youth was still dissatisfied with farm work. To divert himself he read widely in agriculture, philosophy, religion, and poetry. The reading, at this time, of a collection of songs had an important influence on his literary development. Ambition began to stir him, but as yet he had no aim. In the attempt to escape from the weary routine of his life he dallied with love affairs; he formed a bachelors' club with the object of amusement and admiration of the fair sex. Then he fell in love with Ellison Begbie and wrote for her *Mary Morrison,* but she rejected him a year later. During the Lochlea period Burns wrote (beside *Mary Morrison) My Nannie O, Winter, An Autumn Song to Peggy,* and other simple folk songs. In the meantime he had taken a course in surveying. At 22 he became a flax dresser of Irvine, but now misfortunes heaped upon him: the shop was burned, his father was stricken down with consumption, and he was jilted by a second lady.

Burns describes himself at 24 as "a man of some sense, a great deal of honesty, and unbounded good will to every creature, rational and irrational."

After the death of their father, when Robert was 25, the poet and his brother took a farm at Mossgiel. The prevailing despondency and melancholy of that year is reflected in the satire of *Holy Fair* and *Holy Willie's Prayer.* The next year, at 26, Burns met Jane

Armour and this event in his life was followed by a year of great literary production, whose outstanding examples are *The Cotter's Saturday Night* and *The Jolly Beggars.*

AII IQ 130 (Rel. coeff. of data, .60)

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ANTONIO CANOVA (1757–1822)

A Celebrated Italian Sculptor

AI IQ 130 AII IQ 140

I. *Family standing.* The Canovas were workmen, stonecutters and builders, who for several generations supplied their region with its minor works of the stonecutter's art. Antonio's father and grandfather were both successful craftsmen.

II. *Development to age 17.*

1. Interests. The bias of Canova's mind was to sculpture and every opportunity for learning was seized upon. Interest was centered in his art and in the studies related to it. A gallery of plaster casts belonging to his patron in Venice delighted him, and became a place for careful study. Canova formed a resolution when he was about 16, which he adhered to for some time, never to close his eyes at night without having formed some design.

2. Education. Antonio's early training was given by his grandfather, who had adopted him after the father's death and the mother's remarriage. The boy's early years were passed in study; as soon as he was able to hold a pencil, he was initiated into the principles of drawing. Employed by his grandfather a little later on the works on which the latter was engaged, he acquired mechanical skill and accuracy in execution. Then followed two years of training under the sculptor Torretto, and at their conclusion, Canova accompanied his teacher to Venice where he studied and worked for eight years (aged 15 to 23), first under Torretto and after his death under his nephew Ferrari. At 16 the boy had determined to strike out for himself in an attempt to follow the paths of the ancients to true art.

Because of their importance for sculpture, he began the study of anatomy, archaeology, ancient and modern history, and continental languages. He had found a studio of his own in a monastery where friendly monks permitted him to work.

3. School standing and progress. Canova had no formal school training.

4. Friends and associates. His masters, the elder and the younger Torretto, and the patrician and patron of art, Falieri, befriended and encouraged him. (See II 2 and 6.)

5. Reading. Canova's reading was incidental to the study of his art. (See II 2.)

6. Production and achievement. At the age of 8 Canova executed two small shrines of Carrara marble which are still extant. From about this age he appears to have been constantly employed under his grandfather. That he had attained considerable proficiency at the age of 13 is attested by two baskets of fruit, his workmanship at that time. It is no wonder that his skill was noticed; it is fortunate that he who noticed it was the nephew of the noted Venetian sculptor Torretto, who placed the boy, for his greater advancement, with this famous uncle and arranged that he should go with him to Venice. Canova began his first important statue, "Eurydice," at 15 and completed it before he was 16—a work highly esteemed by his artistic friends; and he had begun the companion statue, "Orpheus," before the "Eurydice" was finished.

7. Evidences of precocity. Antonio's carvings at 8 attest the early appearance of his special talent.

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* From his 15th to his 23rd year Canova studied under Torretto, and after the latter's death, with Ferrari. Scorning the debased and artificial rococo art of the day, the young artist turned to Nature, whom he studied and imitated. The "Orpheus," executed first (at 16) in soft stone and repeated (at 19) in marble, was exhibited by the Academy of Venice, and acclaimed with admiration. The early impression made by the young sculptor on his countrymen was strengthened when, at 21, he exhibited the life-size group, "Daedalus and Icarus"; approval was general, and for this work Canova received his first significant financial reward.

At 23 Canova removed to Rome. At this time modern Italian art was dead, but the young sculptor, introduced for the first time to classical antiquity, regarded this period as the true beginning of his artistic life. He was befriended by the Venetian ambassador, who secured his entry to literary and artistic circles. It was during this year or the next that a pension was granted by the Venetian government with a provision that the sculptor furnish to the city copies of ancient works. Because of the restriction Canova refused to accept the bounty.

At 24 "Theseus Vanquishing the Minotaur" was exhibited; its style and beauty occasioned surprise and admiration. A year later Canova commenced the monument to Ganganelli, Clement XIV, which, on its completion when he was 29, established firmly the artist's reputation.

AII IQ 140 (Rel. coeff. of data, .43)

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PIERRE CORNEILLE (1606–1684)

A Celebrated French Dramatist

AI IQ 130 AII IQ 140

I. *Family standing.* Corneille's family had for several generations been prosperous members of the middle class. The paternal grandfather held the position of councillor in the Parlement of Rouen. The father was a parliamentary lawyer and a government official of some standing, who was eventually ennobled. The mother was of similar social standing, both her father and grandfather having been in the legal profession.

II. *Development to age 17.*

1. Interests. (No specific record.)

2. Education. "At an early age" Pierre was placed in the Jesuit school at Rouen, where he remained until he reached the age of 16. After leaving school he spent two years in the study of law.

3. School standing and progress. At 12 Corneille won a second prize for Latin verse; and at 14 he was awarded another prize for distinction in the same subject. At 14 he finished the course in rhetoric in his school, at 15 the course in logic, and at 16 the course in physics.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record beyond the evidence given in II 3.)

AI IQ 130 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* After leaving school Corneille studied law and was admitted to the bar (at 18), but he practiced with neither pleasure nor success, and shortly he began to devote himself to poetry. By the time he was 23 his father had secured for him two offices, probably sinecures, which he held for 21 years. About this time his first comedy, Mélite, was successfully produced in Paris and was followed at intervals by other dramatic productions. His fame was established in 1636 when, at the age of 30, he produced the tragedy, *Le Cid.*

AII IQ 140 (Rel. coeff. of data, .60)

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HEINRICH HEINE (1797 [?]–1856)

A Celebrated German Poet and Critic of Hebrew Descent

AI IQ 130 AII IQ 145

(There is some question as to the year of Heine's birth; 1797 seems the most probable date.)

I. *Family standing.* Heine's paternal ancestors were Jews, many of whom had, in the last two generations, become successful business men. His father, a poor business man of Hamburg, was, however, a weak, vain man whose chief pleasure was to dress well; aimless and superficial, he was incapable of guiding his own or the family's destinies. The duty of home direction fell upon his wife, an energetic, loving mother, herself uneducated, but the descendant of a Jewish family many of whose members had been professional men. In contrast to her husband she had a good deal of taste for literature, art, and music.

II. *Development to age 17.*

1. Interests. Little Heinrich's first nurse was a believer in witches and their craft, and it was she who introduced her willing listener to the folk superstitions. At 12, and again at 14, in catching sight of the great Napoleon, Heine felt his own natural thirst for independence and liberalism accentuated.

2. Education. Heine was taught the alphabet by his mother, who drew the letters on a door with chalk. His first school instruction was imparted by an old dame, but at 10 he was sent to the Lycée at Düsseldorf, where grammar, history, geography, Latin, Greek, French, and arithmetic were taught. At this school he had a first lesson on the dangers of free speech, for he received a sound thrashing as a result of the uproar which arose when he told the news that his grandfather was "a little Jew with a long beard."

Out of school hours Heine made the acquaintance of an old French drummer from whom he learned the French language and French politics.

Heine entered the highest class in his school at 14, the usual age of entrance for the sons of the professional class. Two, or perhaps three years later, Heine (aged 16 or 17) left school, but without taking the university entrance examination.

3. School standing and progress. Heine was a studious boy and learning was easy for him. He was well trained in modern languages, and knew as much of the ancient as his ill-prepared instructors were able to teach him.

4. Friends and associates. Among his classmates Heinrich was friendly with Dietrich, the painter, and one Franz. Rector Schallmeyer and Professor Schramm were interested in him as a little boy, and assisted him in his lessons. But the most influential of his friends were the French drummer, *"Le Grand,"* and an uncle, a peculiar man who wrote for obscure periodicals and newspapers,

and first aroused Heinrich's desire to write; he allowed the boy the use of his library.

5. Reading. In the library of his uncle, Heine burrowed among dusty manuscripts, tomes of philosophy and occultism, antiquated medical works, and more orthodox classics. The lad himself mentions the effect *Don Quixote* made upon his youthful mind and states that he read also *Gulliver's Travels* and Stern's novels.

6. Production and achievement. At 16 Heine wrote his first verses—the poem *Wunnebergiade,* a satirical lay of school life, characterized as a "clever performance." He probably wrote several other poems before leaving school.

7. Evidences of precocity. The youth early manifested signs of a satirical humor and a taste for the romantic. At 16 he fell in love with the niece of a "witch," whom he adored, as he says, "in scorn of society and all its dark prejudices."

AI IQ 130 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Heine would have liked to go to the university, but since his Jewish blood debarred him from all professions except the medical, for which he had no taste, he turned to commerce. He served at Frankfurt with a banker, and later in Hamburg with his millionaire uncle. During his residence in the northern city he fell in love with his cousin, and stimulated by this devotion wrote a number of poems, of which six were printed in a local newspaper. The commercial aspect of the town and his life depressed him, he longed for fuller intellectual experience, and so, at 21, he went to Düsseldorf to prepare for the University of Bonn, which he entered six months later with a reputation already established as a verse-maker.

Now he attended lectures on law, literature, and history, and with the encouragement of Professors Schlegel and Arndt, took up the translation of Byron's *Farewell.* At 22 he published three poems. But a year later he was again despondent; the pedantic atmosphere at Bonn grated against his nature, his verses were refused by Brockhaus, his cousin Amalie was engaged to a landowner, and finally he was suspended from the university for being the challenger in a duel.

At 23 he left Bonn and went to the University of Berlin. The more brilliant atmosphere of the capital satisfied him; he attended lectures by Hegel, Hagen, Bopp, and Wolf, and resumed his law studies. In the following year, at 24, he published *Junge Leiden, Almanzar, Radcliffe,* and *Lyrisches Intermezzo.* Following this, he paid a visit to his home, where, bored and listless, he loitered away nearly a year. At 27 he was baptized, a necessary preliminary, and received his doctor's degree.

AII IQ 145 (Rel. coeff. of data, .60)

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JOHANN GOTTFRIED HERDER (1744–1803)

A German Critic and Poet of the So-Called Classical Period of German Literature

AI IQ 130 AII IQ 155

I. *Family standing.* Herder's grandfather, a native of Silesia, was a small farmer. The father, by trade a weaver, was the teacher of a girls' elementary school. He was a man of strict regularity, unflinching industry, unfailing devotion to duty, and of so great a reputation for honesty that he was often resorted to by his neighbors for counsel. Herder's maternal grandfather was a blacksmith.

II. *Development to age 17.*

1. Interests. Young Herder early learned to love melody and tone, for it was the custom for the family to meet together, after the work of the day, to sing a religious song, led by the father. The latter must have had ability in this line, as he directed the choir in the Polish church of his city.

The boy was always grave and serious, never playing like other children; he loved solitary walks in the woods, listening to the birds, and collecting flowers.

Such a passion for reading developed in early childhood, that the father finally had to forbid the bringing of books to the dinner table. At 5 Herder was first afflicted with a fistula in his eye which was a source of suffering throughout his life, and perhaps increased a tendency to melancholy. Oppressed by the harshness of his teacher, Grimm, and the tyranny of the pietistic Trescho, Herder at 16 longed for death.

2. Education. Johann Gottfried memorized many verses from the Bible, and was instructed in the elements of learning at home; then he was sent to the town school, which, however, did not at that time maintain a high standing. A stern schoolmaster exemplified tyranny, dry pedantry, and dogmatic learning; but he taught Latin grammar thoroughly, together with a smattering of Greek and Hebrew. A new pastor, Trescho, convinced Herder's parents that their poverty and the weakness of the boy's eye were insurmountable obstacles to the getting of a higher education, and so induced them to allow their son to become, at 16, his general servant and amanuensis.

3. School standing and progress. Herder's thirst for knowledge,

his pleasing manner, and his rapid school progress made him one of his teacher's favorite pupils, with the practical consequence that the pupil received private lessons from his instructor in the Greek New Testament, in Homer, and in logic.

4. Friends and associates. Herder was drawn closely to his mother "because of her tenderness, sympathy, and imagination"; she taught him to pray, to think, and to feel. But he lived for the most part in a world of his own, shunned human society, and confided his hopes and plans for the future to no one. His teacher and a pastor encouraged the boy in his ambitions for the ministry, but another pastor, Trescho, refused to recognize the budding genius.

5. Reading. Herder's passion for reading was so great that as he walked along the streets he would watch the windows and whenever he saw a book he would knock at the door and ask to borrow it. In Trescho's library Herder (at 16) found a treasure house; he read secretly far into the night in the works of the Greek and Roman authors, in books of travel and theological literature, and he devoured the works of the new German poets, Kleist, Gellert, Uz, Klopstock, and Gleim.

6. Production and achievement. Eight undated poems are assigned to the period before Herder was 17; they show classical training, deep feeling, and the effects which misunderstanding had upon a sensitive spirit. The titles of the eight suggest their character: *Battle Song of the Besiegers of Heaven, To Himself the Pindaric Imitator, Song of Morning, Wishes for a Friend, The Emotions of Friendship, Lament for Himself, Elegy,* and *Longing for Rest and Death.*

7. Evidences of precocity. (No further record.)

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Herder's first dated poem, an ode purporting to be written by an ancient Jew to Cyrus, was placed by its author anonymously with a manuscript of Trescho's when the latter was dispatched to the bookseller. Although the poem was favorably received and printed, Trescho's only comment was a reprimand to Herder for his unwarranted act.

A physician of a Russian regiment, recognizing Herder's talents, took him to Königsberg to teach him surgery, in return for which Herder was to translate a medical work into Latin; but the poet soon found that the study of medicine was utterly distasteful. At 18 he passed with honor, the required university entrance examinations before the dean of theology. While he attended the university he maintained himself by teaching. He attended the lectures of Professor Kant and was much influenced and inspired by his teacher's point of view. The great Hamann became his close friend. When after two years of study, Herder left Königsberg, he was already regarded as a genius destined for distinction as poet, teacher, preacher, or man of science. The following years Herder spent in Riga where he held the office of instructor in the cathedral school. He was successful in teaching and in disseminating progressive educational

ideas. He became an intellectual leader and was sought after as an honored friend. In order to keep him in Riga the city government appointed him *"pastor adjunctus"* of two suburban churches. People crowded to hear him preach. At 22 and 23 he published *Fragments on the New German Literature* and *Forests of Criticism.* After an illness he left Riga and spent his 26th year in travel, visiting Nantes, Paris, where he met Diderot and D'Alembert; Hamburg, where he met Lessing among other notables, and Strassburg, where he met the youthful Goethe and became his mentor. The same year Herder received the prize of the Berlin Academy for an essay on the development of language (one of his best works), and he accepted the position of head-preacher at Dückeburg.

AII IQ 155 (Rel. coeff. of data, .75)

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CHRISTIAN HUYGENS (1629–1695)

Dutch Natural Philosopher and Mathematician

AI IQ 130 AII IQ 150

I. *Family standing.* Huygens' father was Sir Constantijn Huygens, son of "a man of great political importance" who was secretary to the state council at The Hague. Sir Constantijn was a famous Dutch poet and diplomatist of extraordinary intellectual powers, great physical beauty and strength, and skill in playing the lute and painting pictures. He became, indeed, the most brilliant figure in Dutch literary history, and is characterized as "the grand seigneur of the republic, the type of aristocratic oligarchy, the jewel and ornament of Dutch Liberty." Concerning the mother of Christian, Susanna van Baerle, there is no information.

II. *Development to age 17.*

1. Interests. (See II 2.)

2. Education. Christian received from his father his first instruction in ancient languages and mathematics. When he was 9 he was called by his parent "an example of living piety." At 15 he was taught mathematics by Stampioon, a mathematician of some fame, and at 16 he went to the University of Leyden to study law under the famous Vinnius. According to the rules of conduct which his father sent him at this time, he read a chapter of the New Testament every morning, studied drawing, and took music lessons on the organ, beside following the lectures of Vinnius and the course in mathematics; each day before dinner he devoted some time to literature.

3. School standing and progress. (See II 2.)
4. Friends and associates. (No further record.)
5. Reading. (No further record.)
6. Production and achievement. (No further record.)
7. Evidences of precocity. (No further record.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* From 17 to 19 Huygens studied mathematics at Breda University, with the famous Van Schooten. He also exercised his ability in drawing, and said the greatest pastime he had was drawing with chalk. At 20 he accompanied the Mission of Henry of Nassau to Denmark; at 22 he published his *Exetasis quadraturae circuli,* an attack on the unsound system of quadratures; before he was 23 he published his next scientific work, *De circuli magnitudine inventa,* which attracted the attention of Descartes; at 25 he wrote a treatise in which he made the closest approximation so far obtained to the ratio of the circumference to the diameter of a circle.

AII IQ 150 (Rel. coeff. of data, .53)

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WASHINGTON IRVING (1783–1859)

An American Historian, Essayist, and Novelist

AI IQ 130 AII IQ 145

I. *Family standing.* Irving's father was descended from one of the oldest and most respectable families of Scotland. He was a sedate and God-fearing man who had small sympathy with the amusements of his children, and lost no opportunity of giving their thoughts a serious turn. The mother, granddaughter of an English curate, was a woman of "lovingly demonstrative and impulsive character, whose gentle nature and fine intellect won the tender veneration of her children."

II. *Development to age 17.*

1. Interests. Through his boyhood Irving was full of vivacity and innocent mischief; in fact, his sportiveness and disinclination to religious seriousness gave his mother some anxiety. He had a love of music which later became a passion, and a great fondness for the theatre; he would steal away early to a play, return for family prayers, then slip through his window, and return to enjoy the finish of the piece. He was inspired by his reading with an impelling desire to go to sea, and would wander about the pierheads watching the departing ships.

2. Education. At 4 years Irving was sent to a school kept by Mrs. Kilmaster, in which he continued nearly two years. From 6 to 14 he attended a school kept by a Revolutionary soldier. He completed his preparatory course before he was 16 and then entered upon a two-year apprenticeship in a law office. He never ceased to regret, in later life, that he did not go to college as his two brothers had done.

3. School standing and progress. In his first school he made very little progress beyond the alphabet. In the second he was a favorite with the master, whose partiality, however, seems to have been due to an appreciation of the boy's truthfulness rather than to the recognition of any indications of talent. Irving excelled in composition, but arithmetic he found tedious; he would sometimes do the written work of other boys in exchange for the solution of mathematical problems.

Irving's period of apprenticeship in law was "marked by considerable proficiency in *belles-lettres*, but very slender advancement in the dry technicalities of the practice."

4. Friends and associates. (No record.)

5. Reading. A taste for reading was early developed. At 10 Hooke's translation of the *Orlando Furioso* inspired the youth to perform mock feats of bravery in the yard of his home. Books of voyages and travels became his passion at 11, this interest being first awakened by *Robinson Crusoe* and *Sindbad the Sailor*. Not allowed to read at home after retiring, Irving used to secrete candles in order to indulge in the forbidden pleasure. He would also take books to school, and snatch moments of reading under the shelter of his desk.

6. Production and achievement. After seeing Jefferson in the comedy *Speculation*, Irving (aged 13) was inspired to write a play, which was then presented at a friend's house.

7. Evidences of precocity. (See II 3.)

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Following his apprenticeship, Irving became a law clerk in the office of Josiah Hoffman, whose household became his second home. A little later (aged 21) on account of poor health, he was sent on a trip to Europe, where he visited France, Italy, Switzerland, and England. He was admitted to the bar on his return, but found his chief interest in the publication of the humorous *Salmagundi*, a semi-monthly periodical started with his brother and James Paulding. At 25 he began work on a *History of New York* which was finished and published the following year.

AII IQ 145 (Rel. coeff. of data, .43)

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JEAN PAUL MARAT (1743–1793)

A French Revolutionist

AI IQ 130 AII IQ 130

I. *Family standing.* Marat's father has been reported variously as "a man of education, by profession a physician"; "a designer who had abandoned his country and religion and married a Swiss Protestant," and "a painter and designer." All authorities agree that he was interested in giving his son a good education. Marat's mother, to whom her son was devotedly attached, "loved justice and humanity" and inspired in her son Jean Paul a spirit of service to his fellow men.

II. *Development to age 17.*

1. Interests. Marat wrote that from his earliest years he had been "devoured by the love of glory," which never left him for a moment. "At the age of 5, I wished to be a school teacher, at 15 a professor, at 18 an author, at 20 a creative genius. By the age of 10, I had formed the habit of leading a studious life."

2. Education. The boy received a very thorough education in his father's home and thus escaped "all the vicious practices of childhood which degrade and enervate the man." He is supposed to have spent two years (about 16 to 18) studying medicine at Bordeaux.

3. School standing and progress. "Docile and diligent; my masters could obtain anything from me by kindness." At the University of Bordeaux "his capacious mind readily absorbed learning; he had a keen perception and his memory was marvelously retentive."

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* From the age of 16 to 30 history loses sight of Marat, except to record that he spent these fourteen years in travel and study. At 30 he made his first appearance as an author with his *Philosophical Essay on Man,* which shows remarkable knowledge of philosophy and psychology and an original approach to both.

AII IQ 130 (Rel. coeff. of data, .11)

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JULES MAZARIN (1602–1661)

A French Statesman

AI IQ 130 AII IQ 135

I. *Family standing.* Mazarin's parents were Sicilians who were living in Rome at the time of Jules's birth. The father was a man of "fair education and shrewdness, who found favor with his patron and advanced his own fortunes and those of his children." The mother was a lovable woman who held the affection of her son.

II. *Development to age 17.*

1. Interests. "From the age of 5 Jules was distinguished for the spirited and graceful manner in which he joined in the religious exercises of the Oratorien fathers." By the age of 16 he had an aptitude for all things, but particularly for intrigue, and was well known for his passion for gambling."

2. Education. His mother wished to give him his first instruction; then, when he was barely 7, he was sent to a Jesuit college in Rome, where he remained for nine years.

3. School standing and progress. At the Jesuit college he "showed himself an apt scholar."

4. Friends and associates. At 16 Mazarin entered the world as an attaché of the Colonna family. "His companions were then young nobles, eager for pleasure and impatient of restraint."

5. Reading. (No record.)

6. Production and achievement. In a dramatic representation by the Jesuits, Mazarin (aged 16) played the leading rôle with such ability and naturalness that the "whole assembly was overwhelmed with admiration, and he was fêted and honored as the greatest actor they had ever seen." When the famous comet of 1618 appeared, Père Grassi, his professor in astronomy, had the boy (aged 16) sustain a public thesis on this subject before a great number of cardinals, princes, and other learned men. Mazarin proved worthy of his professor's confidence, and displayed in his arguments such ease, confidence, and eloquence, that he won unanimous commendation. The Jesuit fathers "desired so promising a youth for their order," but he resisted their solicitations, preferring to enter the service of the court. At that time "gambling was universal, and superior skill and judgment enabled Mazarin alike to join in this amusement of his betters and to gain from it the means of equalling their extravagance and display." (See also II 1 and 3.)

7. Evidences of precocity. "At birth Mazarin had hair and two teeth, a fact to which he always enjoyed alluding"; and it is said that his parents were struck by the intelligence which he manifested very early. (See also II 1, 3, and 6.)

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* After passing several times from poverty to riches, Mazarin tired of court life, and was glad to be

sent by Colonna to the University of Alcola, as chamberlain to the young Duke. Here he won distinction for his gambling and his gallant adventures, rather than for superiority in his studies; he "thoroughly mastered the Spanish tongue and the Spanish fashion of making love" and was barely extricated by the Duke from an untimely marriage. At 20 he took his degree as Doctor of Laws and then became captain of infantry in the regiment of Colonna, taking a distinguished part in the petty civil wars of that period.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

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JEAN-BAPTISTE POQUELIN (MOLIÈRE) (1622–1673)

A Celebrated French Dramatist and Actor, the Greatest French Writer of Comedies

AI IQ 130 AII IQ 130

I. *Family standing.* Molière's paternal grandfather and father, and his maternal grandfather as well, were prosperous upholsterers. The father became royal *tapissier*. He was a strenuous, thrifty shopkeeper, but a generous father, intensely concerned in giving his son an excellent education. The mother was apparently a woman of considerable character and some education.

II. *Development to age 17.*

1. Interests. It is said that the little Molière was taken to the theatre by his grandfather, who, when the father remonstrated, said that he hoped his grandson might become as good a comedian as the favorite of that day. This inspired the boy with a desire to go on the stage and developed in him a dislike of the upholstering trade. At school his inclination for literature made him study the poets with great care.

2. Education. Up to the age of 10, the boy was educated by his mother. From the age of 14 to 19 he attended the Jesuit College of Clermont, which would presuppose considerable previous instruction. The course of study was devoted chiefly to the classics, especially Latin, but the students sometimes presented dramas. At 15 Molière was officially appointed his father's successor as royal upholsterer.

3. School standing and progress. At school it is said that "his quick intelligence distinguished him from all others." Good in classics, he was excellent in philosophy.

4. Friends and associates. (No specific record.)

5. Reading. Molière knew the classics well, especially Terence. He was an enthusiastic student of Lucretius; and it is thought that he made a translation from that poet while he was at school, for a few lines of such a translation occur in *Le Misanthrope*.

6. Production and achievement. (See II 5.)
7. Evidences of precocity. (No specific record.)

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* While at Clermont Molière counted among his friends Chapelle, Bernier, Hesnault, and the famous Cyrano de Bergerac, who were, with him, pupils of Gassendi the Epicurean. At 19 Molière left the college, and probably spent the next two years studying law; but at 21 he had decided to adopt the theatre as his profession, and so renounced his claims to the office of *"tapisseur du roi."* This incurred the displeasure of his family, who could not sympathize with the eccentricity that would exchange bourgeois solidity for the precariousness of a comedian's life. A troupe of ten actors was formed, with Molière as one of the principals, and Jean-Baptiste Poquelin signalized his severance from the bourgeois world by adopting the stage name Molière.

The Théâtre Illustre, however, was not crowned with success; twice the enterprise failed, and in 1645 Molière, aged 23, was imprisoned for debt. In the following year the presumptuous young actors left the fierce competition of Paris for the provinces, and there Molière played for the next twelve years, content to be an actor, and as yet showing no ambition to become a playwright.

AII IQ 130 (Rel. coeff. of data, .43)

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SIR ISAAC NEWTON (1642–1727)

A Famous English Mathematician and Natural Philosopher

AI IQ 130 AII IQ 170

I. *Family standing.* Newton's paternal forebears had, for a hundred years, been in possession of a small manor. But the father, though lord of the manor, was, in fact, a small farmer "of good family." Of the character or standing of the mother and her ancestors nothing is recorded, but it is stated of her that she "became convinced that her son was not destined to be a tiller of the soil," and "resolved to give him all the advantages which education could bestow."

II. *Development to age 17.*

1. Interests. "With the aid of little saws, hammers, hatchets, and tools of all sorts, Newton was constantly occupied during his play hours in the construction of models of known machines and amusing contrivances." In addition to water clocks, in which he specialized, he constructed a carriage to be moved by the person

who sat in it, and also a windmill; and so carefully had he observed the construction of windmills, that he was able to make his own model a marvel of "clean and curious workmanship." For the lady of his affections and for her dolls he made little tables, cupboards, and other utensils.

Newton was a sober, silent, and thinking lad who never took part in the ordinary games and amusements of his school-fellows, but employed all his leisure hours in invention. He would invent diversions for his comrades, such as paper kites, after carefully investigating the best forms and proportions. At night he attached paper lanterns to his kites, thereby terrifying the country people who thought them comets.

The imperfect measure of time given by his water clocks led him apparently to a study of the sun's motion; and he succeeded in making three unusually accurate sun dials. He was expert also with his pencil and pen; he drew portraits and framed them; and he drew on the walls birds, beasts, men, ships, and mathematical diagrams. He wrote verses, but no authentic specimen of them is extant. The love of study, and a dislike for every other occupation increased with his years.

2. Education. Newton was a posthumous child, and on the remarriage of his mother when he was 3, he passed under the care of his grandmother, who sent him "at the usual age" to a day school, where he acquired education in the three R's. At 12 he was sent to the public school at Grantham. At 14, on the death of his stepfather, and having acquired all the knowledge that his school could supply, Newton was recalled to his home. After an unsuccessful attempt at making a farmer of her boy, Newton's mother sent him back to Grantham to continue his studies and there he remained from the age of 16 to 19.

3. School standing and progress. Newton later reported that he was extremely inattentive to his studies, and stood very low in the school (apparently his mind was on other matters); but an indignity suffered at the hands of a fellow pupil determined him to vanquish the offender by scholastic superiority as well as by immediate physical chastisement. After a hard struggle, Newton rose to the highest place in school.

4. Friends and associates. Before he was 14 Newton met a young lady whom he later wished to marry, but his poverty prevented this; she was twice married, while he died a bachelor. In his early years he preferred the society of the young ladies in the house where he boarded to that of his school-fellows.

5. Reading. (See II 6.)

6. Production and achievement. (See II 1 for inventions, etc.) At 14 Newton undertook the management of the little family estate; but it soon appeared that he was not destined to be a farmer, as he was constantly engaged with his books.

7. Evidences of precocity. (See II 1 and 2 and contradictory [?] evidence in 3.)

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* When Newton left Grantham school at 19, his old teacher "made a speech in praise of his character and talents (and) held him up to the scholars as a proper object of their love and imitation." The youth entered Trinity College, Cambridge, as a sizer, and there probably devoted himself to mathematics. He received the degree of B. A. in 1665 (aged 23), and in March of the same year reported his first great discovery of fluxions. This year the famous apple observation is said to have been made. In the following year Newton experimented with a glass prism "to try therewith the phenomena of colors." He fled from Cambridge in 1665 because of the plague, but returned two years later (aged 25) as a minor fellow. Records are preserved from these two years, indicating that Newton purchased books and instruments of a mathematical and physical nature.

In 1668 at the age of 26, he took his degree of M. A., being 23rd in a list of 148, and in the following year he was appointed to the Lucasian Chair of Mathematics "before [which date] all [his] discoveries had germed in his mind."

AII IQ 170 (Rel. coeff. of data, .60)

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WILLIAM HICKLING PRESCOTT (1796–1859)

An American Historian

AI IQ 130 AII IQ 135

I. *Family standing.* The Prescotts belonged to the original Puritan stock of New England and were distinguished as people of culture and leaders in the Massachusetts Colony. William's father was a successful lawyer, a member of the legislature, and chairman of the committee appointed to revise the constitution of his State. The mother was characterized by her activity and energy. Both parents were great readers.

II. *Development to age 17.*

1. Interests. Prescott never fancied rude or athletic sports; he preferred quiet social games or those involving an intellectual element. Among his favorites were playing at circus, acting out some particular battle of antiquity, and telling long, fantastic tales. In story-telling, Prescott's inventions were of the wildest, and his sense of the ridiculous was at times almost so strong as to overpower him. When the other boys were occupied with their exercises of physical strength, Prescott amused himself at home with light reading; he was always fond of books.

2. Education. Prescott's first instruction, from his mother, was followed by training at a primary school where he was one of the favored pupils. At 6½ he entered the school of Master Kapp in Salem, where he continued for five years. When he reached 12 years of age the family removed to Boston and Prescott was placed in Dr. Gardiner's school, then known as the best classical school in New England. The attendance was limited to perhaps a dozen pupils, and the instruction, which was oral and individual, was excellent. Prescott studied the Greek and Latin classics and English with Dr. Gardiner, and, in addition, took private lessons in mathematics, writing, and foreign languages (French, Italian, Spanish). At 15 he was ready to enter Harvard, where he pursued the regular classical course of that day.

3. School standing and progress. Prescott was a bright, merry boy with an inquisitive mind, quick perceptions, and a ready, retentive memory. He generally learned his lessons; but he loved play better than books, and was too busy with other than academic activities to become one of the best pupils of the school. With Dr. Gardiner, Prescott, 12 to 15 years old, learned easily; but in daily practice he always made a distinction between university requirements and classical accomplishments. He never went further than was required, fearing that he might encourage the assignment of additional tasks. In modern languages, and in arithmetic and writing, Prescott made little progress, and this, in the case of the languages, was because they were not required for college.

In his college entrance examination he was told, when he inquired from a professor "how well" he had done, that he "did himself a great deal of credit."

Prescott's ambition at college was to acquire "the culture of a gentleman." "He worked out a regular schedule for study; but he was very careful not to exceed the time he had mapped out for any particular study." He never kept the rules that he made for himself, but he always kept within the limits prescribed by honor and his academic standing.

4. Friends and associates. As a little boy, Prescott was not liked by all of his associates, because he expressed his opinions and feelings more confidently than was agreeable, a habit perhaps due to home indulgence. During his college preparatory years Prescott was a favorite among the boys, although he was rather mischievous and still somewhat overbearing. Two life-long friends were school fellows with him at Dr. Gardiner's: the younger Gardiner (his teacher's son, later an eminent lawyer) and Ticknor, his own biographer-to-be.

5. Reading. Prescott was fond of books from his earliest childhood. As a very little boy his imagination would become so excited by certain works that he dreaded being left alone, and would cling to his mother's gown and follow her about the house. He enjoyed reading *Œdipus Tyrannus* but became fretful when he was asked to read *Prometheus Vinctus,* because the latter was not required in the regular college preparatory course. He liked Horace, Juvenal

he disliked, and Persius he would not read at all. He read great numbers of books of the lighter sort, especially when he had the privilege of access to John Quincy Adams' library in the Boston Athenaeum. Of all reading he preferred extravagant romances and books of wild adventure.

6. Production and achievement. Prescott's Latin verses were superior to those of any other boy in his school. That he was a clever letter writer is witnessed by a missive written at 15, giving a lively account of his college entrance examination.

7. Evidences of precocity. (See II 2, 3, 5, and 6.)

AI IQ 130 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Owing to an accident while at Harvard, Prescott, at 17, lost completely the sight of his left eye. His industry, however, was unimpaired; he distinguished himself in his college work, and at his graduation was chosen to deliver an original Latin poem. Walker, a university contemporary, later president of Harvard, said that Prescott was "in classic learning one of the most accomplished."

On leaving the university, Prescott studied law for six months in his father's office, but, becoming subject to chronic rheumatism, he abandoned the pursuit and turned merchant. Then, in search of health, he cruised (aged 19) to the Azores, England, France, and Italy, solaced, in periods of total blindness that occurred during the journey, by listening to the works of Scott, Shakespeare, books of travel, and histories which were read aloud to him. He returned home at 21 and in the two ensuing years (aged 22 to 24) entered more into society and edited a paper, which was, however, only moderately successful. At 24 he married, and, deciding a little later on a literary career, he mapped out a strict course of preparatory study. His first literary contribution, a review of Byron's *Letter on Pope,* was accepted by the *North American Review* and appeared the same year and before Prescott had reached the age of 26.

AII IQ 135 (Rel. coeff. of data, .60)

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SIR WALTER RALEIGH (1552–1618)

An English Courtier, Officer, Colonizer, Historian, and Poet

AI IQ 130 AII IQ 130

I. *Family standing.* Raleigh's father, a country gentleman of Devonshire, was a pronounced Protestant; his mother was a "woman of noble wit, and of good and godly opinions"; both were well descended.

II. *Development to age 17.*

1. Interests. It is believed that, until his 15th or 16th year, Raleigh lived on the Devonshire coast, where he probably came in contact with the new and growing spirit of English enterprise then beginning to rival Spanish achievement. Very little definite information about young Raleigh has been found, but a hint as to his character is contained in the story that, at 15 or 16, and during the Oxford period, he advised a complaining fellow, an excellent archer, who had bemoaned an insult, to challenge his abuser to a "match of shooting."

2. Education. At 15 or 16 the youth became a commoner of Oriel College, Oxford; "and his natural parts being strangely advanced by academical learning under the care of an excellent tutor, he became the ornament of the juniors, and was worthily esteemed a proficient in oratory and philosophy." The date of his entry to the university is uncertain, but he must have entered not later than 1568, when he was 16 and still a very young student, even for Elizabethan days.

3. School standing and progress. (See II 2.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At 17 Raleigh left Oxford to join the Huguenots in France, a dangerous service, since capture by the enemy was liable to lead to death by hanging. Three years later in 1572, his name appears on the Oxford register, but he did not take an Oxford degree. He may have been the "Walter Rawely of the Middle Temple" who, in 1576 (when Raleigh was 24), published some commendatory verses prefixed to *The Steele Glasse* of George Gascoigne. "The verses have much of the savor of Raleigh's mind and diction." But even if he was of the Middle Temple, he did not study law.

AII IQ 130 (Rel. coeff. of data, .11)

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JEAN JACQUES ROUSSEAU (1712–1778)

An Eminent Swiss-French Philosopher

AI IQ 130 AII IQ 125

I. *Family standing.* Of old French stock, the Swiss Rousseau family belonged to the class of skilled workmen. One was a tanner; and his son, grandson, and great-grandson were watch-makers of high standing. The last in the sequence, Jean Jacques' father, was restless, sensitive, unstable, heedless of ordinary affairs, with a punctilious sense of personal dignity. He was a great reader, especially

of imaginative literature. The mother's forebears included men of ability and culture, and she herself was a person of distinguished education; but her father was dissolute. Jean Jacques lost his mother at the time of his birth.

II. *Development to age 17.*

1. Interests. At home in Geneva, where reading was not a task, Rousseau was devoted to it; but at Bossey, whither he went at 12, reading was required, and so the boy's interest turned from it to outdoor pleasures and manual activities. From the age of 12 to 16 Rousseau manufactured all kinds of things (see II 6); among others was a puppet theatre for which he and his cousin composed comedies, presenting them to the family audience. The theatrical fad was later replaced by an enthusiasm for preaching sermons.

Rousseau states that the organic sensations of emotion were consciously present "almost at birth." Two youthful love affairs occurred before the boy was 16. A little later came a period of depression, when he was disgusted and discontented with himself and his surroundings. He spent most of his time in reading (see II 5), but still joined his youthful companions in occasional hilarious outbursts.

2. Education. Rousseau preserved no recollection of his first five years, but he reports that he was a sickly little fellow who was not expected to survive. When at a very early age he had somehow learned to read, he and his father devoured every night after supper some part of a small collection of romances. The father's intention was to improve his son in reading, but so absorbed did the two become in the works themselves that they often sat up all night in order to finish one of the volumes. As a result of this fantastic experience, strange and romantic notions of human life developed early. Fortunately, when he was 7, Jean Jacques turned to history.

The boy's early years were directed and guarded by his father and his aunt with care and affection until, when Jean Jacques was 10, his father was banished as the result of a quarrel with an influential citizen, and the boy was sent with a cousin to be educated in the home of a pastor. Here he was taught Latin and "all the insignificant twaddle which is generally comprehended under the name of education"; and it was also here that a punishment (when he was 12) for a misdemeanor which he had not committed, upset his whole moral attitude. On his return home he lived at his uncle's house, and there he and his cousin received some instruction in drawing and geometry. But for the most part the children were left to themselves.

At length Rousseau was apprenticed first as a clerk and later as an engraver's assistant. He ran away from his second master, and was taken up by a priest who hoped to win him to the Catholic Church. While the priest and his associates were attempting to convert the boy, he in his turn had the inspired wish to convert them, and his vanity was gratified when he saw that his arguments embarrassed them. However, it was they, and not he, who tri-

umphed, and at length, after living some time in the monastery at Turin, he was received into the church.

3. School standing and progress. No specific account of either is preserved.

4. Friends and associates. No record has been found of others than members of the family, and of teachers, patrons, employers, and "a friend." (See II 1, 2 and 6.)

5. Reading. The reading of romances, begun at 6, ended at 7. The following winter, while his father was at work, Jean Jacques read aloud such volumes as Le Suer's *History of the Church and Empire,* Bossuet's *Discourses on Universal History,* Plutarch's *Lives,* Nani's *History of Venice,* Ovid's *Metamorphoses,* La Bruyère, Fontenelle, and a few volumes of Molière. Plutarch presently became his greatest favorite; the boy was fired by the proud spirit of the Greeks and Romans, entering into their lives and living them over again in imagination. Discontinuing his reading for a time, he resumed it when, between the ages of 12 and 16, he was apprenticed to the engraver. Now he read in order to forget his troubles, but unfortunately he forgot his work as well. Reproofs followed, but these only increased the taste for reading until it became a passion. The youth read all the volumes of the lending library, both good and bad, until finally he did nothing but read and dream.

6. Production and achievement. From 12 to 16, living in his uncle's house, Rousseau with his cousin was actively engaged in manufacturing such articles as cages, pipes, kites, drums, houses, ships, and bows; the boys endeavored also to make watches, and devoted considerable time to drawing, painting, and coloring.

Apparently Rousseau despised his first serious occupation as clerk. His employer had small sympathy with him, for he called him a fool and a blockhead, said he could not discover any understanding in him, and finally dismissed him. The engraver to whom he was next apprenticed reduced him to servitude, and caused him to forget all the culture he had ever acquired. Although he did not dislike the work, he feared his master. Finally, neglect and irregular habits brought a crisis, and rather than face it, Rousseau ran away. He was taken up by priests who fed and clothed him, and then turned him adrift to work at various temporary posts as servant or lackey. In one position as house boy he was kindly treated and instructed in Latin by members of the family; in the same house he distinguished himself (according to his own account) by explaining an old French motto. He won the praise and respect of these people, but after a short period of service he left them to undertake a journey with a friend from Geneva.

7. Evidences of precocity. Rousseau wrote: "I am persuaded that I was never really a child. I always felt and thought as a man." At 6 the boy was so carried away by his reading that he shed tears in sympathy with the misfortunes of his romantic heroes. Between 12 and 16 he acted like a dunce, and was accused of being one. (See II 6.)

AI IQ 130 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At the conclusion of a year of wandering, Rousseau reached the town of Annecy penniless, and here he was taken up by Mme. de Warens. The time passed very pleasantly. Rousseau read the *Spectator,* Puffendorf, St. Evremond, and the *Henriade;* but, as he himself says, it was too good to last. Interrogated by a kinsman of his benefactress, he was rated somewhat of a fool, and so they sent him to a seminary to become a priest. After a short trial, however, the authorities returned him as unsuitable material. He next decided (at 19) to try music as a profession; he visited several towns, finally settling in Lausanne as a teacher of music. Although his undertaking was a failure, for he knew nothing of music, he maintained himself for a while by his effrontery, and then attached himself as interpreter to a Greek monk. At 20 he had once again sought out Mme. de Warens, who obtained for him a position on the land survey. Again he returned to his music, and then undertook the supervision of some of his patroness' affairs. He was now living with her in the closest intimacy, and by her was polished for society, sent to dancing lessons, etc.

When Rousseau was 24 the two retired to the country. A little later, on his partial recovery from a severe illness, the young man decided to learn "everything" and started with the philosophers (whom he found contradictory); from philosophy he went to geometry, Latin, physiology, and anatomy. This life continued until, when he was 28, Rousseau tore himself away from Mme. de Warens, in whose affections he had been replaced by another, and became a tutor at Lyons.

AII IQ 125 (Rel. coeff. of data, .53)

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Morley, John, *Rousseau,* London, Macmillan, 1896. (Two vols.)

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CLAUDE HENRY DE ROUVROY, COMTE DE SAINT-SIMON (1760–1825)

A French Philosopher, the Founder of French Socialism

AI IQ 130 AII IQ 135

I. *Family standing.* Saint-Simon belonged to an old and honorable family which claimed descent from Charlemagne. His grandfather, a marquis, was a man of distinction. His father held various high military and political offices, was brigadier of the king's armies and governor of Senlis. The mother was an heiress, descended from another branch of the same family.

II. *Development to age 17.*

1. Interests. Saint-Simon was reared in an atmosphere of aristocratic prejudice. He developed early an intense desire for glory and

a clear sense of a great future awaiting him. The ardent desire to distinguish himself in some way was intensified by his great imagination and became a persistent ideal. In firmness and courage he was a young Spartan.

2. Education. Saint-Simon's education was like that of the nobles of his day; it was devoted largely to philosophy. His training was not regularly directed, though he studied with D'Alembert for some time.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. It is said that, at 13, Saint-Simon showed his sincerity and independence by refusing to partake of his first communion because he had no conviction as to its meaning. This was in spite of the fact that imprisonment by his severe father would be thus incurred.

AI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 Saint-Simon enlisted in the army and was sent to America. For his distinguished service there he was made a member of the Society of the Cincinnati. After another campaign, during which he was wounded and imprisoned, Saint-Simon was in Mexico for a brief time and there he presented to the viceroy a project for bringing the two oceans into communication. At 25 he was named Chevalier de Saint-Louis and colonel of a regiment, spent a brief period in the study of mathematics under Manze, the celebrated mathematician, and before the end of the year started on a tour of the continent. At this time his mind was devoted chiefly to scientific subjects.

AII IQ 135 (Rel. coeff. of data, .43)

REFERENCES

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GIROLAMO SAVONAROLA (1452–1498)

An Italian Religious Reformer

AI IQ 130 AII IQ 135

I. *Family standing.* The Savonarolas were of Paduan descent, the first known being Antonio Savonarola (1256), "a valiant warrior who defended the city against the tyrant Ezzelino." Girolamo's grandfather, a physician of high repute in the Paduan school, was learned, pious, and charitable in bestowing his services on the poor. He wrote numerous medical and other works and was a distinguished luminary of the court of Este, winning honor as a university

teacher and court physician. Of Girolamo's father little is known. His mother, a member of an illustrious Paduan family, won by her firmness and nobility the worship and confidence of her later distinguished son.

II. *Development to age 17.*

1. Interests. Girolamo was not one to respond to the pageantry of the court of Este, for "even in earliest youth his heart was torn by passions driving him to open war with the world around him." But he had a "true passion" for study.

2. Education. The family hoped he would become a physician, and to this end his grandfather devoted himself to the boy's education.

3. School standing and progress. (No record.)

4. Friends and associates. (No specific record is preserved except of members of the family. The grandfather especially influenced Girolamo's early years.)

5. Reading. "So great was his ardor for books that even those beyond his comprehension were eagerly seized upon and ransacked for hidden treasures."

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record. But see II 5.)

AI IQ 130 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* After the grandfather's death, Girolamo was instructed in philosophy by his father. He studied the works of St. Thomas Aquinas, and Arabic commentaries on Aristotle as guides to the study of medicine. "It was strange to behold so young a boy plunged in this sea, or rather labyrinth, of confused syllogisms, and finding so much pleasure in the task as soon to become a skilful disputant." He acquired a profound knowledge of the Scriptures, devoured the ancient writers, composed verses, and studied drawing and music; but his life was melancholy and solitary.

Before the age of 20 he wrote the *Canzone de Ruina Mundi,* an ascetic interpretation of life. At 22 he wrote a treatise entitled *De Contemptu Mundi,* foreshadowing his mission and expressing his conviction of the unfortunate state of Italy.

At this time he recognized a call to the priesthood, and after serious pondering of his course, he entered the monastery of St. Dominic at Bologna. During the first year of his novitiate, he composed *De Ruina Ecclesiae,* treating of the corruption of the church. His early Aristotelian education influenced his lectures at first, but later he relied solely on the Bible for inspiration.

AII IQ 135 (Rel. coeff. of data, .53)

REFERENCES

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RICHARD BRINSLEY BUTLER SHERIDAN (1751–1816)

A Noted English Dramatist, Orator, and Politician

AI IQ 130 AII IQ 145

I. *Family standing.* Sheridan was born a member of an intellectual and highly educated family. Accounts of his paternal grandfather, his father, and his mother are included in the *Dictionary of National Biography.* The father was at various times a theatre manager, an actor, and also "a fertile writer and a most enthusiastic educational reformer." The mother was a clever and fascinating woman who achieved some fame in literary fields.

II. *Development to age 17.*

1. Interests. (See II 6.)

2. Education. At the age of 7 Sheridan and his small sister attended a school in Dublin called the "Seminary for the Instruction of Youth," conducted by a relative, Sam Wythe. At the age of 11 the boy was sent on to Harrow, where he remained until he was 17.

3. School standing and progress. Evidently Sheridan did not distinguish himself to any extent at the seminary, except by lampoons and repartee, but he was no dullard. "He made some progress in French, and laid the loose foundations of that desultory scholarship which, despite assertions to the contrary, he maintained to the end." A Harrow master reports that "he was inferior to many of his schoolfellows in the ordinary business of a school"; but other teachers recognized in him a "clever fellow" and tried, though with only partial success, to spur him to raise his scholarship to a degree worthy of his "vestiges of a superior intellect."

4. Friends and associates. In early childhood Sheridan and his younger sister were closely associated. She wrote later: "We had no one else to love. My father's affections were fixed on his eldest son and on my sister. Had my mother lived our fate would have been different." A Harrow friend, Halhed, is mentioned, who collaborated with young Sheridan in translating classic poetry.

5. Reading. (See II 3, 4, and 6.)

6. Production and achievement. Though inattentive to most of his studies at Harrow, Richard distinguished himself by his poetry, translating with a friend the *Seventh Idyl* and many of the lesser poems of Theocritus.

7. Evidences of precocity. Richard's father considered the elder son, Charles, to be the brighter of the two boys. (See also II 6.)

AI IQ 130 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* After completing his course at Harrow, Sheridan, now 18 years of age, went to live in London. Before his 21st birthday he had struck off a considerable amount of literary composition independently and also in collaboration with Halhed, his former schoolfellow; but only one fruit of the alliance ever saw publication. This was a metrical translation of Aristaenetus, which drew some little attention.

Sheridan married secretly at 21. At 22 he studied for a time at Waltham Abbey and at the Middle Temple and the same year he and his young wife were married a second time publicly. By the time Sheridan was 24 *The Rivals, St. Patrick's Day,* and *The Duenna* had all been successfully produced; and before he was 26 the young playwright had become manager and part owner of Drury Lane Theatre.

AII IQ 145 (Rel. coeff. of data, .60)

REFERENCES

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Sichel, Walter Sydney, *Sheridan,* Boston, Houghton, 1909. (Two vols.)

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BENEDICT DE SPINOZA (1632–1677)

A Famous Philosopher, the Greatest Modern Exponent of Pantheism

AI IQ 130 AII IQ 145

I. *Family standing.* Spinoza's father and grandfather both held honorary offices in the Jewish community to which they belonged. The former, if not rich, was probably well-to-do; he lived during his later years in a substantial house. The mother was the second of her husband's three wives.

II. *Development to age 17.*

1. Interests. (No specific record.)

2. Education. It is inferred that young Spinoza attended the Jewish school for boys, at Amsterdam, from the age of 5 to about 18. Here the pupils were given instruction in the Hebrew language, history, and religious writings. The boy had two noted teachers (probably during the period of his teens), who were both well educated rabbis: one was philosophical, but prosy; the other was a liberal thinker, a prolific writer, an inspiring teacher, a man of wide sympathies and moral earnestness. Besides the subjects studied in Hebrew at school, Spinoza learned Spanish and Portuguese from his parents, Dutch from his associates, Latin, and possibly Italian and German, from a German scholar. It is likely that he pursued also mathematics, physics, and (later) scholastic philosophy. He was probably confirmed in the Jewish faith at the age of 13.

3. School standing and progress. As a little lad he showed uncommon ability in the perplexing questions he put to his teacher, Rabbi Mortiera.

4. Friends and associates. As a youth "at the house of his rabbi, Spinoza would occasionally meet Christians who were interested in Judaism, or in the Jewish interpretation of the Old Testament. Here also he may have met Rembrandt." His associates were for the most part Jews.

5. Reading. (No specific record.)

6. Production and achievement. At 15, or before, Spinoza was an amateur draughtsman. There are records of ink and charcoal sketches which he made of his friends, and one of himself in the costume of Mas Anjellos.

7. Evidences of precocity. "Spinoza showed from his childhood, and in his younger years, that nature had not been unkind to him. His quick fancy and penetrating wit were easily perceived." (See also II 3.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* From his 19th to his 22nd year Spinoza pursued his studies under the able Van den Enden, with whom he read and discussed Latin, Greek, medicine, physics, and probably the philosophy of Descartes. The young man's knowledge of philosophy was drawing him away from the Jewish creed, and at 24 he was excommunicated for heresy. Apparently this was for him no cause for regret, for he said, "This compels me to nothing which I should not otherwise have done." From this time on he plied the art of lens grinding, of which he was a master.

AII IQ 145 (Rel. coeff. of data, .43)

REFERENCES

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Pollock, Sir Frederick, Bart., *Spinoza, His Life and Philosophy,* London, Duckworth, 1899. Appendix: *Life of Spinoza* by Jan Colerus.

SIR WILLIAM TEMPLE (1628–1699)

An English Diplomatist, Statesman, and Author

AI IQ 130 AII IQ 120

I. *Family standing.* The Temple family was one of "ancient lineage and honorable estate." William's scholarly grandfather was secretary to Sir Phillip Sidney and Provost of Trinity College, Dublin. Sir John Temple, his father, was a distinguished English lawyer and statesman, Master of the Rolls in Ireland, a distinguished member of the Privy Council at Dublin, and author of a *History of the Irish Rebellion in 1641.* The mother was the sister of a celebrated divine of Kent.

II. *Development to age 17.*

1. Interests. Temple early developed a "wonderful desire for knowledge."

2. Education. His early training was under his distinguished maternal uncle, who found in him "a solid penetrating mind." At 10 the boy was sent to a school at Bishop-Stortford where he learned "all the Latin and Greek he ever knew." Of this he is said to have retained the former, but to have lost most of the latter.

3. School standing and progress. (No record.)

4. Friends and associates. (No specific record.)

5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No further record.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Temple entered Emmanuel College, Cambridge, at 17. Here "he improved himself in all the Parts of Humane Learning," and made himself "perfect Master" of French and Spanish. Because of his superior knowledge of these languages he has been accounted "the best Philologer of his Time." He left Cambridge at 19 without a degree. From the age of 19 or 20 he spent eight or nine years on the continent, where he acquired facility in speaking and reading the principal modern languages then necessary to a statesman. He continued to pursue his studies in history and philosophy between the ages of 26 and 32, and at 32 first distinguished himself in public life.

AII IQ 120 (Rel. coeff. of data, .11)

REFERENCES

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Boyer, Abel, *Memoirs of the Life and Negotiations of Sir Wm. Temple,* London, Taylor, 1714.

Temple, Sir Wm., *Works,* London, 1814. Vol. 1.

PIERRE-VICTURNIEN VERGNIAUD (1753-1793)

A French Orator and Revolutionary Statesman

AI IQ 130 AII IQ 135

I. *Family standing.* Vergniaud was descended on both sides from the ancient bourgeoisie of Limousin. His father was able to increase an already comfortable income through his business enterprise, but failed during a severe scarcity of crops.

II. *Development to age 17.*

1. Interests. (No record.)
2. Education. The boy's early education was received at Limoges under a priest who was a master of ancient languages in the college of that town.
3. School standing and progress. It is reported that "the young Vergniaud made rapid progress and had great success in his studies at the college of Limoges."
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (No further record.)

AI IQ 130 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Although his father had failed in business as a result of poor crops, Vergniaud (aged about 18) was

able to enter the College of Plessis because of a scholarship secured for him by Turgot. Later he attended the Sorbonne, spent several years in the study of philosophy and theology, and graduated with high honors. He had already earned "the reputation of being deeply learned in the lore of the ancients." There followed a period of uncertainty in which his tastes and inclinations were unreconciled, but before he was 27, the success of some of his verses gained him an entrance into several fashionable salons of Paris.

AII IQ 135 (Rel. coeff. of data, .20)

REFERENCES

Vergniaud, Pierre-Victurnien, *Manuscrits, lettres, et papiers,* Paris, Dumoulin, 1873. (Two vols.)

Warwick, Charles F., *Robespierre and the French Revolution,* London, Unwin, 1909.

COUNT VITTORIO ALFIERI (1749–1803)

A Celebrated Italian Dramatist

AI IQ 135 AII IQ 135

I. *Family standing.* Alfieri was born of aristocratic and wealthy parents. His father, a nobleman, was bred to no profession; although a man of strict morals, he was wholly devoid of ambition. His mother belonged to an old Savoyard family of Turin; she was an admirable character, respected for her virtue and beloved for her piety.

II. *Development to age 17.*

1. Interests. Alfieri developed early a natural inclination for study, although the members of his family had no interest in education. The imaginative, hypersensitive child was often antagonized by the kinds of punishment to which he was subjected for minor offenses, and his "spirits were always in extremes." His love for solitude was increased by the mental and physical suffering resulting from a variety of bodily complaints; the most distressing of these was an eruptive disease which covered his body with ulcers and made him "the sport of his companions."

At 13 Alfieri heard grand opera for the first time and found that music "produced the most varied and terrific sensations in his mind." In his own practice on the harpsichord he made little progress because he could never acquire a knowledge of the written characters. Riding, for which he had long had a passionate desire, was prohibited by his guardian and it was only after the death of the latter, when the boy was 14, that he engaged in this activity; he then became very expert in it and regained his health and vigor through the exercise. At 15 the boy owned his own stud of eight horses.

2. Education. Alfieri's father died when his gifted son was not yet a year old, and the mother married again a little later. The boy was first educated at home under a "worthy priest" who taught him the elements of arithmetic, writing, and a little Latin, before he

was 9. From 9 to 14 he attended the Academy of Turin, sent thither by an uncle, "a man of great intelligence" who saw that his nephew was not being efficiently instructed. Although the masters at Turin proved to be inferior in knowledge and method, Alfieri remained at the Academy until he was 14 studying there under the direction of the Turin University authorities. At 14, upon the death of his uncle, Alfieri became his own master, gave up study, although he was still officially enrolled at the university, and led an idle and dissipated life. At 16 he took a journey to Genoa where he was enchanted by the beauty of the city.

3. School standing and progress. On his entrance to the Turin Academy Alfieri was entered in the fourth class by examination and assured of rapid advancement should he be diligent. After re-examination three months later "with other youths somewhat older," he was admitted to the third class, and stimulated by emulation he soon outstripped the best of his companions. But when he had surpassed them all his zeal slackened and he "sunk into a kind of torpor." In fact, there was little to stimulate interest in "the wearisomeness and insipidity" of the school course, in which, so he says, "the best days of our youth were consumed in vain." After wasting two years under wretched teachers Alfieri was promoted to a class "in charge of an intelligent and sagacious priest," who afforded him "all the information in his power," so that the boy "became a considerable proficient in the Latin." A rival schoolmate, a "noble and prepossessing" fellow, at this time stimulated him by sometimes equaling him in composition and usually exceeding him in memory exercises. At 11 Alfieri had been admitted into the class of rhetoric, and, although he was indolent, he passed the examination at the end of the year. He then took up geometry and philosophy in classes at the university and studied geography and ancient history for pleasure. In the university classes he replied to the questions perhaps better than any of the others, although he comprehended, he says, neither the pedantic philosophy nor the geometry, and his apparent success was, according to his own account, "a simple act of memory." At 14, after passing a public examination in logic, geometry, and physics, he was awarded the Master of Arts degree.

4. Friends and associates. Alfieri was devoted to his sister, and after she left home to become a nun he loved her memory in every young Carmelite novice. This fancy developed into so absorbing an interest in the young nuns that the youth neglected his studies, employment waxed irksome, and he became disgusted with society.

Upon becoming master of his own fortune at 14, he was surrounded by friends and parasites such as follow in the train of prosperity, but none of his relatives took the smallest concern in his affairs beyond arranging for his entrance to the Academy.

5. Reading. At 11 Alfieri had read Metastasio and Ariosto. A little later the *Æneid* fell into his hands and he read it more than once with the greatest avidity. At 13 he was perfectly enchanted with *Gil Blas* and enjoyed it more than the *Æneid,* the only other book he had read from beginning to end. Romances such as *Cas-*

sandra, Almachilda, and *A Man of Quality* interested him at an early age, and he perused the prose works of Voltaire with pleasure.

6. Production and achievement. From an early age Alfieri's unbounded ambition was gratified by the fact that he usually bore away the prize in composition, but at 11 he could not recite more than 400 lines from Virgil "and those very incorrectly; a circumstance that gave him much uneasiness." It was at 11, too, that he wrote his first sonnet. This was so praised by his friends that he thought himself already a poet, but his uncle soon chilled his enthusiasm completely and he relinquished, until he was 25, every idea of again writing verses.

7. Evidences of precocity. At 5 Alfieri looked forward to death as a relief from a serious and painful illness (dysentery); he rejoiced at the thought of "becoming a little angel" like a younger brother who had died. At 7 or 8 in a melancholy mood, perhaps induced by ill health, he devoured a number of plants which he believed to be hemlock and which he hoped would bring about his release from a miserable existence. (See also II, 1 to 6.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* On leaving the Academy Alfieri received an ensign's commission in a provincial regiment; here his duties were few, but such as they were he detested them thoroughly. The next six years he spent in travel, with one period at home devoted to reading French works and, with especial delight, Plutarch's *Lives.* In the course of his first grand tour he journeyed through the principal cities of Italy, but with unseeing eyes, for he had no taste for the fine arts. He disliked France, was delighted with England, and had his first love affair in Holland. His second journey took him to Vienna, Prussia, Denmark, Sweden, Russia, England, Spain, and Portugal; and he returned "as much of a philosopher as was compatible with his years, and equally proud as ignorant." A paper that he presented on his return before a society to which he belonged was so well received that he was inspired with a vague desire to produce some work of literary worth. But, rousing himself only for the adventure of two or three love affairs, he lived in deplorable idleness until when he was near the age of 25 he set to work in real earnest. His labors were now devoted to producing the tragedy of *Cleopatra,* of which he had made a sketch, and acting upon the criticism of Father Paciaudi he worked with indefatigable patience until the tragedy was completed. From the night when Alfieri (aged 26) saw his play presented in Turin "a devouring fire took possession of his soul; he thirsted one day to become a deserving candidate for theatrical fame."

AII IQ 135 (Rel. coeff. of data, .53)

REFERENCES

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Bowring, Edgar A. (Preface to the *Tragedies of Alfieri,* London, Bell, 1876. Vol. 1.)

LANCELOT ANDREWES (1555–1626)

An English Divine and Controversialist

AI IQ 135 AII IQ 140

I. *Family standing.* Andrewes' father, in his earlier years a seafarer and in his later life one of the masters of Trinity House, was a member of the commercial middle class. Both he and his wife are said to have been "honest and religious" and "very careful of the education of their children."

II. *Development to age 17.*

1. Interests. Andrewes was often so wholly absorbed in study that he had to be compelled to take his part in the school games.

2. Education. At an early age he was sent to the Coopers' Free School of Ratcliffe, but before long he was transferred to the newly founded Merchant Taylors' School. Here he was in care of the first master, an educator who displayed distinct originality and who added to the usual classical curriculum exercises that developed musical and dramatic appreciation. At 16 Andrewes entered Pembroke Hall, Cambridge.

3. School standing and progress. In his first school Andrewes exhibited such a "passion for study" that his master "obtained of his parents that he should not be a prentice." At the Merchant Taylors' School "he made rapid progress; his diligence was extraordinary; early and late he was at his studies; he used to rise at four; he would work while others were at play, and indeed had to be compelled to take his part in the school games." He was sent to Cambridge as the holder of a recently established Greek scholarship.

4. Friends and associates. Thomas Dove, later Bishop of Peterborough, was his chief school and college friend.

5. Reading. (No further record.)

6. Production and achievement. (See II 2 and 3.)

7. Evidences of precocity. (See II 2 and 3.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Andrewes' enthusiasm for learning continued unabated throughout his school and college career. Although theological questions particularly absorbed his attention, he did not neglect any of the prescribed courses; rather he applied his great energy to many lines of research. At 20 he received the B.A. degree, at 21 he was elected fellow of his college, as the result of a competitive examination, in those days a rare event; at 23 he became college catechist, his catechetical lectures attracting crowds of students and young curates; at 25 he was ordained; and before he was 26 his remarkable gifts as a physician of souls were already widely recognized.

AII IQ 140 (Rel. coeff. of data, .60)

REFERENCE

Ottley, Robert Lawrence, *Lancelot Andrewes,* London, Methuen, 1894. Ed. 2.

ANTOINE ARNAULD (SURNAMED "THE GREAT ARNAULD") (1612–1694)

A French Philosopher and Jansenist Theologian

AI IQ 135 AII IQ 160

I. *Family standing.* Arnauld belonged to a family of prominent lawyers. His grandfather was *procureur-général* to Catherine de Medici. His father, a leader of the Paris bar, and a violent anti-Jesuit was renowned for his fine mind and attainments, his ambition, and his piety. Arnauld's mother was the granddaughter of an eminent advocate; she was a woman of strong character, and after her husband's death became a nun in the celebrated convent of Port Royal.

II. *Development to age 17.*

1. Interests. None are recorded apart from his studies.
2. Education. Arnauld, the youngest of twenty children, was reared with two of his nephews, of whom the elder was his senior.
3. School standing and progress. Arnauld could always, says Le Maître (the elder of the two youths with whom he was educated), recite his lessons without any preparation beyond hearing the exercises of the other two, who took their turns at recitation first.
4. Friends and associates. None are recorded except relatives.
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (See II 3.)

AI IQ 135 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* On the completion of his college course Arnauld's own intention was to study law, but the influence of the great St. Cyran and of his own mother persuaded him to adopt theology at the Sorbonne. His university career was brilliant; in learning and debate he was equally remarkable. At 23 he defended his thesis propounding the doctrine of grace, and anticipating by six years Jansen's *Augustinus.* His path seemed straight and easy, but in order to receive the Doctorate of the Sorbonne it was necessary to be a priest, and Arnauld did not yet feel fitted to assume holy office. In a dilemma he called upon the advice of St. Cyran, who counselled theological studies together with practical religious exercises, solitude, fasts, prayer, and study of the Scriptures. The success of the treatment was beyond question; the young man renounced this world's goods and espoused the doctrines of Port Royal. In 1641 (at 24) he became Doctor, and after the death of his mother a few months later, he commenced his career of 53 years "in the cause of truth," suffering over 30 of these in concealment or exile.

AII IQ 160 (Rel. coeff. of data, .43)

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RICHARD BAXTER (1615–1691)

A Noted English Nonconformist Divine

AI IQ 135 AII IQ 135

I. *Family standing.* Baxter's father "was a mean freeholder, called a gentleman for his ancestors' sake." After early gambling away his property, he was converted to religion and thereafter lived an altered life. The mother was the daughter of a resident of Shropshire.

II. *Development to age 17.*

1. Interests. In his childhood Baxter was fond of the usual sports and indulged in the petty misdemeanors of childhood, a cause of later care to his sensitive conscience. Through the reading of religious books when he was 15 he was turned to a religious life.

2. Education. Baxter's early schooling was directed by commonplace teachers, "ignorant men," but his father's instruction in religion and morals made a deep impression. At 14 Richard entered an excellent school in Wroxeter which he attended for three or four years.

3. School standing and progress. The boy was inordinately proud of his master's commendations for learning, and he was later so impressed by the influence of this early praise that he could write, "all of them fed my pride, making me seven or eight years the highest in the school and boasting of me to others, which though it furthered my learning yet helped not my humility." Records indicate that when Richard was 14 he stood at the head of his class; his own statement suggests that this high standing was not unusual in his school career.

4. Friends and associates. Baxter's classmates included a future canon of Christ's Church.

5. Reading. When he was 7 Baxter was set to read the historical part of the Scriptures, which suited his nature and greatly delighted him. At this time he was "bewitched with a Love of Romances, Fables and old Tales, which corrupted [his] affection and lost [his] time." It was *Bunny's Resolution* which converted Baxter, when, at 15, he first came upon it. Other religious works which he read at the same period strengthened his religious convictions.

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* After a year and a half of private instruction from the Chaplain of Ludlow Castle, Baxter was called, at 18, to teach classes in the preparatory school he had formerly attended. During the following years he suffered from serious physical disability—pulmonary tuberculosis and nervous depression; but he nevertheless devoted his time and energy to the study of religious controversies and theological discussions. Because he expected death shortly to end his career he did not enter upon a college course. From 23 to 24 as first master of a school he devoted

his time to teaching and preaching; at 25 he was appointed assistant minister at Budgnorth.

AII IQ 135 (Rel. coeff. of data, .60)

REFERENCES

Baxter, Richard, *Reliquiae Baxterianae, or His Own Narrative of His Life and Times*, Sylvester, 1696.

George, Edward Augustus, *Seventeenth Century Men of Latitude: Forerunners of the New Theology*, New York, Scribners, 1908. Pp. 169–189.

PIERRE BAYLE (1647–1706)

A Noted French Skeptical Philosopher and Critic

AI IQ 135 AII IQ 140

I. *Family standing.* Bayle's father, a clergyman of the reformed church, came of an "honorable" family; while his mother, also a Protestant, was connected with two houses of the French nobility.

II. *Development to age 17.*

1. Education. Bayle's education, up to his 19th year, was conducted entirely by his father, who, having taught him Latin, began when the lad was 12½ to teach him Greek and during the next few years kept him busy reading the best authors in both these languages.

2. Interests. None are recorded, apart from his studies.

3. School standing and progress. (No specific record, but see II 1.)

4. Friends and associates. None are recorded apart from his family.

5. Reading. (See II 1.)

6. Production and achievement. (No specific record.)

7. Evidences of precocity. From early childhood Bayle was remarkable for his lively intelligence and prodigious memory; an insatiable curiosity appeared as soon as he was able to talk, and he questioned his parents incessantly with an eager and attentive interest. He had an ardent desire to know and to understand, and would continue his questioning on a point until he grasped it in its entirety.

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At the age of 18 Bayle entered the Academy of Puylaurens, pursuing his studies with eagerness. During the vacation he continued his studies with the same diligence, and as a result of his overwork fell ill. When scarcely recovered, he returned to his labors with redoubled energy, thus bringing on a relapse which kept him at home for 18 months. During his convalescence (aged 20½) he was taken to Saverdun, where he had access to the minister's library; but here the confinement, incident to constant reading, brought on a fever which nearly caused his death. After a slow recovery he returned (aged 21) to the Academy, where he again prosecuted his studies with zeal and at the same

time read Plutarch and Montaigne for pleasure. Thinking his progress not rapid enough, Bayle at 21 entered the University of Toulouse. Here, a month later, he was converted to Roman Catholicism. At 22 he presented his thesis, and "the clarity, penetration, and modesty with which he responded to his opponents drew the applause of everyone." He attempted to convert the whole of his family to his new religion, but was not successful; and before he was 23 he was himself brought back to Protestantism. Fearing persecution at home for his change of faith, he went to Geneva, where, until he was 24, he instructed the children of a syndic of the Republic. Following this he was tutor for two years in another family.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCES

Du Revest, *Histoire de Mr. Bayle et de ses ouvrages*, Amsterdam, Desbordes, 1716.

Des Maizeaux, Pierre, "La Vie de Monsieur Bayle." (Prefixed to Bayle's *Dictionnaire historique et critique*, Amsterdam, 1730. Vol. 1.)

LUDWIG VAN BEETHOVEN (1770–1827)

A Celebrated German Composer of Dutch Descent

AI IQ 135 AII IQ 140

I. *Family standing.* Beethoven's paternal grandfather, the capellmeister at Bonn, was a brilliant musician. His father was a highly talented, but weak and intemperate man. His maternal grandfather was head cook in the fortress of Ehrenbreitstein; and the biographer believes that it may have been from him that Ludwig's mother, a quiet, domestic woman, derived her considerable fund of native intelligence.

II. *Development to age 17.*

1. Interests. Beethoven's one interest from his earliest youth appears to have been in music; from forced attention there developed natural inclination.

2. Education. In his earliest childhood his father gave him lessons upon the pianoforte and violin; from his 6th year he was given daily lessons and required to practice "in spite of his tears." His father, wishing to concentrate upon the boy's musical education, gave him only the barest common school training (including a little Latin, but excluding arithmetic and writing), which he acquired at two elementary public schools. From the age of 7 to 10 the little boy is said to have received violin and viola lessons from one of the younger court musicians, and piano lessons from the court organist and, occasionally, from an able tenor singer. Often, late at night, his father and this tenor on their return from the wine-house would take him from his bed and then keep him at the piano until morning. From the age of 13 to 16 Ludwig was instructed by Neefe, the

court organist, receiving instruction in thorough bass and in composition. It is reported that when Beethoven visited Vienna at 16 Mozart gave him some guidance.

3. School standing and progress. A classmate reports that at the common school Ludwig showed no signs of genius and that he was rather neglected in appearance; but when he was 12, his master, the court organist, characterized him in a communication to *Craner's Magazine* as a "boy of most promising talent," who "plays the clavier very skilfully and with power, reads at sight very well, and in fact plays 'the well tempered Clavichord' of Sebastian Bach—the *non plus ultra* of our art." His teacher concluded, "This youthful genius is deserving of help to enable him to travel. He would surely become a second . . . Mozart were he to continue as he has begun." At 12 Beethoven was already able to read and play the most difficult and involved scores at first sight, and already nine variations of his composition on a march theme by Dressler had been engraved.

4. Friends and associates. Beethoven's associates were the members of his family and his musical friends, but his mother appears to have been the only person for whom he cherished any real affection.

5. Reading. (No record is preserved of reading, other than music.)

6. Production and achievement. At the age of 7 years and 3 months, Beethoven, under his father's direction, gave his first public concert, playing "various clavier concertos and trios." Before he was 11 he accompanied his mother to Holland and there "played a great deal in great houses, astonished people by his skill, and received valuable presents." When no more than 11½ he was left in charge of his master's arduous duties as court organist; and at 12, in order further to relieve his master, whose duties had become too heavy, he was appointed cimbalist and director of rehearsals for the stage. When he was 13 a petition was granted appointing him assistant court organist; the report in the petition is sufficiently indicative of the favorable opinion held of the youthful musician. Before he was 14 Beethoven had been suggested as a possible successor to his master. At 14 he already showed remarkable skill as an accompanist and the Elector had to forbid his clever tricks when he showed that he was able, in jest, to throw even an able singer off the key.

His first composition is said to have been written at 10—a funeral cantata in memory of the deceased English ambassador. The orchestral director said he could not understand it, but when it was performed there was great astonishment at its originality; approbation gradually increased, until, when it was rendered, there was general applause. The young musician, at 12, composed a two-part fugue in D for the organ. A song, a rondo in C for pianoforte, and a more important work, three sonatas for the pianoforte, were published before he was 13. During his 14th year two compositions were printed—a rondo for pianoforte and an arioso. Probably a concerto and a movement in three parts (not printed) belong to the same year.

At 16 Beethoven was enabled to make a visit to Vienna, where he met Mozart and played for him on a theme suggested by the elder musician. Mozart's attention and interest grew as the youth played until he finally exclaimed, "Keep your eye on him; some day he will give the world something to talk about."

7. Evidences of precocity. (See II 2, 3, and 6.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 young Beethoven was appointed music master to Eleonore and Lorenz von Breuning, remaining the while at Bonn, supporting his family. He disliked teaching and frequently neglected his duties, but his patrons were fond of him and treated him kindly. From 17 to 21 he played a viola in the theatre orchestra, receiving at 18 an appointment as chamber musician to the Elector. A year later two cantatas were published which showed artistry and considerable command of musical material. In his last year at Bonn Beethoven wrote, beside lesser works, his octet for wind instruments and trio in E flat op. 3.

Shortly before his 22nd birthday Beethoven arrived in Vienna, and there he received lessons from Haydn in harmony and counterpoint until his teacher's departure for England in 1794. Beethoven then (aged 23) began taking lessons in violin from the famous Schuppanzigh and in counterpoint from the no less well known Albrechtsberger. The next year a third teacher was added in the eminent Salieri, from whom Beethoven learned vocal composition. All his teachers valued their pupil very highly, although they found him headstrong and selfwilled.

Meanwhile his reputation as a virtuoso had rapidly increased. His piano playing was famous and he was renowned for skill in extemporization; in fact, he was the musical sensation of the time. It was said by one critic: "Since Mozart, I have heard nothing which can in the least compare with him!"

AII IQ 140 (Rel. coeff. of data, .43)

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Diehl, Mrs. Alice (Mangold), *The Life of Beethoven,* London, Hodder, 1908.

Grove's Dictionary of Music and Musicians, New York, Macmillan, 1904.

EDMUND BURKE (1729 [?] –1797)

A Celebrated British Statesman, Orator, and Writer

AI IQ 135 AII IQ 150

(There is some question as to the exact date of Burke's birth. It appears to have been between 1728 and 1730, with the best evidence in favor of 1729.)

I. *Family standing.* The Burkes were a Norman family who had settled in County Cork. Edmund's grandfather owned considerable

property and his father was an attorney with an extensive practice in Dublin, one of the first men of his profession. The maternal stock contributed several members to the various departments of the public service; the mother herself was a woman of cultivated understanding.

II. *Development to age 17.*

1. Interests. Burke's brother said: "When we were at play he [Edmund] was always at work"—i.e., at study. He was fond of the natural beauties of his surroundings and of solitude. "He would find in his own mind, in reasoning and communing with himself, such a fund of entertainment that he seemed not at all to regret his hours of solitude. Yet he was affable, free and communicative, as ready to teach as to learn."

Burke's championship of the rights of the oppressed as well as his support of civil and religious liberty is said to have begun at school (in his early teens). At college, study and the fruits of study became his sole passion.

2. Education. Burke was first taught to read by his mother and an elderly lady of the neighborhood; probably at 5 he was put to school. At 11 he was sent for a year to a school in Dublin; at 12 he was entered with his two brothers in the school of Shackleton, a Quaker, who had a wide reputation as a successful teacher and a good man; at 15 he left this school and entered Trinity College, Dublin.

3. School standing and progress. Burke's early school progress was not considerable, for his family were more concerned about the welfare of his frail body than about his mind. (But see II 1.) Shackleton, the schoolmaster, stated that Burke's habits "indicated more of solidity than commonly belongs to that period of life [12 to 15]. His powers appeared not so much in brilliancy as in steadiness of application, facility of comprehension, and strength of memory." These characteristics won first the commendation and then the warm regard of his teacher. "His memory was extensive and his judgment early ripe."

At 15 Burke left school possessed of what his teacher called, "a large and miscellaneous stock of learning for his years." His university tutor told Burke that he was "a good scholar, understood the authors very well and seemed to take pleasure in them"; and that he was more fit for the college than three parts of his class. In fact Burke's intellectual activity at this period was remarkable.

4. Friends and associates. Among his schoolmates were a number of men later distinguished, but his most intimate friend throughout life was Richard Shackleton, son and successor of the schoolmaster. In his letters to Shackleton Burke gives a picture of his life and interests at college.

5. Reading. Because of the frailty of his constitution in early youth Burke preferred to lie about and read while other boys played. The old romances *Palmerin of England* and *Don Belianis of Greece* were early favorites, and "he made the reading of the classics his diversion rather than his business." He was particularly delighted

with history and poetry. Young Shackleton (3 years his senior) said: "He read much while a boy, and accumulated a stock of learning of great variety." Later at college his tutor planned a heavy course of classical reading which Burke carefully followed.

6. Production and achievement. While at school Burke (aged 12 to 15) performed several exercises in verse writing; in friendly rivalry with Shackleton he translated the *Thirteenth Idyllium* of Theocritus. It is also reported that he wrote some scenes of a play from the story of King Alfred.

From college Burke wrote long and clever letters stating his opinions and at 15 he addressed an ode to his friend Shackleton. At 16 he won a prize volume for proficiency in the classics.

7. Evidences of precocity. (See II 1, 2, 3, 5, 6.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Burke won a scholarship to Trinity College, Dublin, distinguishing himself in the entrance examination, which lasted two days and required an extensive acquaintance with all the Latin and Greek authors of note. At 18 he was absorbed in his college studies. He wrote that he pursued his studies from sallies of passion rather than from the preference of sound reason. His interest led him in turn to mathematics, logic, history, and then poetry; the two latter subjects were his favorites.

At college Burke was noted as a debater and remembered also as an admirer of Milton. He was secretary and later president of a literary club and he wrote poetry.

At 18 he entered Lincoln's Inn in order to study law, but literature still attracted him strongly and in the following year he wrote several poems, including one to his old friend and schoolmate, Shackleton, on the occasion of his marriage. At 19 Burke graduated B.A., and at 21 left home to practice law. Leaving his father caused him little regret, for his parent had become a man of temper and some abuse.

In London Burke found old friends and made new ones. He gradually drifted from the law and took more and more interest in literature, so that after all he was not called to the bar. Of the London period (21 to 30) it is said that "his excesses were not of dissipation, but in study." The elder Burke was so incensed at his son's adherence to literature that he cut off his allowance and for a time Edmund was reduced to his last penny. When he was 27 the period of Burke's greatest productivity began; one of his earliest works (said to have been commenced when the author was 19) was *A Philosophical Inquiry into the Origin of Our Ideas on the Sublime and Beautiful.*

AII IQ 150 (Rel. coeff. of data, .60)

REFERENCES

Prior, James, *Life of the Right Honorable Edmund Burke,* London, Bell, 1889.
Morley, John, *Burke,* New York, Harper, 1900.

JOHN CALVIN (1509–1564)

A Celebrated French Protestant Reformer and Theologian

AI IQ 135 AII IQ 150

I. *Family standing.* The Calvins were a family of energy and capacity who belonged to the upper middle class; the father was a solicitor and attorney, the mother the daughter of a well-to-do innkeeper.

II. *Development to age 17.*

1. Interests. (None are recorded other than scholastic.)

2. Education. Calvin received the rudiments of his education with the children of the noble family of Mommor at the college in his native town. Before he was 12 his father, who destined him for the church, procured him a chaplaincy (a sinecure); but at 14 he was sent with the Mommor children—with whom he had, although at his father's expense, enjoyed every advantage—to the high school of Paris, where he laid the foundation of his remarkable knowledge of Latin. Before he was 18 he had attended another Paris school as well.

3. School standing and progress. Beza states that Calvin surpassed all his schoolfellows in acuteness of mind and strength of memory and that he set himself up as the "censor of his young companions." Some time before he reached the age of 18, Calvin made remarkable progress at the College Montagu under the tuition of a learned Spaniard. "The extraordinary gifts of the young man were strikingly displayed. His mind was so active, that he soon left all his fellow students behind."

4. Friends and associates. Calvin was associated with a superior group of instructors and students. Among the former was Cordier, a renowned teacher, who became his distinguished pupil's friend and disciple.

5. Reading. (No specific record.)

6. Production and achievement. (See II 3.)

7. Evidences of precocity. (See II 3.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Before Calvin's age really qualified him to hold it, his father secured for him (aged 18) the living of Marteville. But in the following year the elder Calvin was excommunicated and his son was sent to the University of Orleans to study law under Petrus Stella. Here the young student gained a high reputation in his legal studies but he did not relinquish his theological interests. His judgment was even requested on the legality of Henry VIII's divorce. So great, indeed, was his reputation for learning that the degree of Doctor was offered him without the usual fees, an honor, however, which he declined to accept.

From Orleans, Calvin moved to Bourges and there, coming under the influence of Wolmar, he was converted to Protestantism. At 20 he

had abandoned the study of law and devoted himself to theology, having the ambition of becoming head of the Reformed Party in France and converting the court and metropolis. But it is said that he lacked the courage of Luther and preferred propagating his doctrines by stealth and at a safe distance from possible danger. At 23, because of his complicity in an unorthodox sermon preached by the rector of the Sorbonne, the police raided his home; Calvin, however, had fled. In the following year he ventured to return. At 25 he published a treatise against the doctrine that the soul, quitting the body on death, falls asleep till the day of Judgment. In the same year, as persecution increased, Calvin with other conspicuous Protestants went to Basle and there the first edition of his *Institutes of the Christian Religion,* was completed. This work contained the principles to which its author adhered throughout his life.

AII IQ 150 (Rel. coeff. of data, .43)

REFERENCES

Dyer, Thomas H., *The Life of John Calvin,* London, Murray, 1850.

Reyburn, Hugh Young, *John Calvin, His Life, Letters and Work,* London, Hodder, 1914.

Henry, Paul, *The Life and Times of John Calvin* (Tr. Stebbing), London, Whittaker, 1849. (Two vols.)

JEROME CARDAN (1501–1576)

An Italian Physician and Mathematician

AI IQ 135 AII IQ 155

I. *Family standing.* Jerome's father, Fazio Cardan, was a man of note among the learned in his neighborhood. A Doctor both in law and in medicine, he was also a great mathematician, but he was hot-tempered, careless of money, and a man of few friends. The mother, daughter of a studious man, was a young widow and not legally married to Fazio, who was forty years her senior. She, also, was passionate of temper and showed no maternal solicitude for her unwelcome son.

II. *Development to age 17.*

1. Interests. Cardan's scientific father aided the constant growth of superstitious feeling in his child's apt mind. The excitement of Jerome's nervous system when he was a mere child caused phantoms to haunt him—colorless figures, that passed before his eyes in a spectacle he enjoyed. He made a secret of this experience, believing that if he told of it whatever caused the spectacle would be offended and he should see the show no more. A vivid dream, often repeated, of a cock with red wings caused the child to tremble in fright, and the fear of early death not infrequently depressed his spirits. Sometimes he felt vague emotions that grew into the form of hunger for undying fame. A taste for mathematics led to the cultivation of a gift in calculating nicely the probabilities in games of chance.

2. Education. The child, whose mother had tried to prevent his birth, was born nearly dead; he suffered from the plague when one month old and soon after from dropsy; he was undernourished while under the care of his second nurse and was kept in a squalid hut. His mother took him at the age of 4, but he continued to suffer from delicate health. From 4 to 7 he was often brought even to the point of death by the results of too frequent punishments, for he was perpetually beaten by his mother, his aunt, and his father, who lived in another house.

Beginning with Jerome's 8th year his father and mother dwelt under one roof with their child. At this time the fragile boy was ordered daily to attend upon his father when he went abroad, carrying his heavy books and papers through the hot streets of Milan.

Before he was 9 Jerome was taught reading and writing and the rudiments of arithmetic by his father, and before he was 12 he learned some principles of Arabian astrology. He was taught to say by rote the first six books of Euclid, but not to understand them; and his father carelessly aided him with a few books and advice in the study of geometry and dialectics. In his father's company he learned to chatter Latin. His mother paid for his instruction in music, while other things Jerome had learnt for his own pleasure.

3. School standing and progress. The child had his father's aptitude for exact learning and his mother's vivacity of wit, but by want of sympathy he became contemplative and was forced into communion with his own mind. Thus through unjust neglect he acquired unwholesome self-consciousness and began to dream constantly of doing some great thing that should command homage.

When the boy was about 10 his father grew kinder, warmed toward him by the signs of intellect that he exhibited and by the readiness with which he picked up information; and, finding that his recollection of dry facts was bad, his father tried to instil into him a system of artificial memory, but without success.

4. Friends and associates. Agostino Lavizario was a friend to whom young Cardan was rather proud to lend his first work, a little treatise on mathematics. Nicolo Cardan, a relative, was also Jerome's friend, and the death of Nicolo made a deep impression on the 16-year-old youth. Having no school associates, and being regarded as a questionable comrade because of his birth, Cardan was much alone; he lived to himself and, in some hope of future things, despised the present.

5. Reading. (No record.)

6. Production and achievement. In his eagerness to obtain a name that should not die, Jerome determined to write a treatise, and, being best prepared in geometry, he wrote of "how and why, the longitude and latitude of two places or stars being known, their true distance from each other may be calculated"; but his manuscript, lent to a friend who died of the plague, was never recovered. About the same time he began another book, more ambitious and more original in its design, an elaborate treatise (not com-

pleted until he was 23) on the science that belongs to games of chance. With the death of Nicolo, Jerome at 16 began to reflect upon the shortness of life and to inquire by what means he might be able to provide something worthy to be remembered by posterity; he then occupied himself with writing a treatise "On the Earning of Immortality."

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Denied the education for which he was thirsting, and trained to no trade or profession, Cardan thought worldly advancement was impossible. With recklessness he turned his energy into games of chance, and became proficient in every game played with dice. At 18 he simulated religious zeal, making a bold push to secure for himself proper instruction. At this time his father became convinced that Jerome must learn to write his thoughts in Latin if he was to earn his living as a scholar. The same year the youth earned some pocket money by giving private lessons in dialectics.

Book writing was a pleasure to him and he spent much time working on his treatises. At 19 he was permitted to go to the university at Pavia, where he worked hardest on learning to read and write Latin. He learned many foreign languages so readily that he attributed his success to a mysterious power imparted by a stranger who sold him a copy of Apuleius. At 20 he disputed publicly with very great success and became a teacher of Euclid in the Gymnasium. He chose medicine as his profession, as the pursuit most likely to beget a philosophic mind. After his father's death (when Jerome was 23) his mother supported him at the university, now at Padua, where the president and Curtius, a physician of note, aided his progress. At 24 Cardan was appointed rector of the Gymnasium, but he received none of the rector's privileges and found the position an expensive one. At 25, after being twice rejected, he was admitted Doctor of Medicine and, with the aid of a zealous friend, immediately began to practice at Sacco, establishing himself there in a house of his own.

AII IQ 155 (Rel. coeff. of data, .60)

REFERENCE

Morley, Henry, *Jerome Cardan*, London, 1854. (Two vols.)

SAMUEL CLARKE (1675–1729)

A Celebrated English Divine and Metaphysical Writer

AI IQ 135 AII IQ 140

I. *Family standing.* Clarke's father was alderman of the city of Norwich and a member of Parliament, a man of "an excellent natural capacity and of an untainted reputation for probity and all virtue." His mother was the daughter of a merchant.

II. *Development to age 17.*

1. Interests. (No interests other than scholastic are reported.)

2. Education. Clarke received the first rudiments of learning in the free school at Norwich where "he made a very uncommon proficiency in the learned languages." At 16 he was removed to Cambridge.

3. School standing and progress. At Cambridge "his impatient thirst after true knowledge and his great capacity both for discovery and improving it, presently began to show themselves." His abilities won for him the name of "the lad of Caius."

4. Friends and associates. (No further record.)

5. Reading. (No further record.)

6. Production and achievement. (No further record.)

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At the university Clarke "set himself . . . . to the study of what was real and substantial." He abandoned the old Cartesianism which still held sway in the universities for the newer philosophy of Newton. At 20 he became Bachelor of Arts, surprising his hearers by the excellence of his address on that occasion. At 21 he published a Latin translation of Rohault's *Physics* with notes that practically refuted the text, and his edition became a standard college textbook. The retiring chaplain of the Bishop of Norwich recommended the youth of 22, and on this recommendation and because of his own favorable impression of the unusual gifts of young Clarke, the bishop appointed him his new chaplain. At 24 Clarke published three or four theological essays and at 25 his untiring energy and industry had won for him the regard of a considerable group.

AII IQ 140 (Rel. coeff. of data, .53)

REFERENCES

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VICTOR COUSIN (1792–1867)

A Noted French Philosopher and Statesman

AI IQ 135 AII IQ 165

I. *Family standing.* The records concerning Cousin's family are very inadequate. They incidate only that the father was a jeweller, the mother a laundress, the boy himself a ragamuffin.

II. *Development to age 17.*

1. Interests. (Nothing recorded beyond school studies.)

2. Education. Through an heroic act in protecting another little fellow of about his own age (10 years) the street vagabond, Cousin,

came to the attention of his little protégé's mother who arranged for his attendance at the Lyceum. He knew how to read and write before entering this school.

3. School standing and progress. During his first three years in the Lyceum Victor's progress was not phenomenal. But at 13, having been chosen to represent his school at the competitive examination, he won a second prize for a Latin theme. In the following years he was regularly selected to represent his school in the public examination. At 14 he won a first prize for a Latin translation; at 15 he won two first prizes (Latin theme and Greek translation) and a second prize (Latin translation); and at 16 a first prize in Greek translation and second prizes in Latin translation and Latin verse.

4. Friends and associates. (No specific record. But see II 2.)

5. Reading. (No specific record.)

6. Production and achievement. (No specific record.)

7. Evidences of precocity. (See II 3.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Cousin achieved four first prizes and one second prize in the competitive examinations, a brilliant and unheard-of triumph. He received national recognition and reward. At 20 he won the doctorate after being "among the foremost" in his class. He became professor of philosophy the same year and rapidly advanced until at 23 he had surpassed his teachers.

AII IQ 165 (Rel. coeff. of data, .75)

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WILLIAM COWPER (1731–1800)

A Celebrated English Poet

AI IQ 135 AII IQ 140

I. *Family standing.* Cowper came from superior stock. His mother's ancestry was perhaps more distinguished than his father's; for she was descended from Mary Boleyn, sister of Queen Anne, and related to the poet Donne, the Dean of St. Paul's. Apparently William had respect but not much affection for his father; his mother, who died when he was 6, he cherished with the tenderest memory.

II. *Development to age 17.*

1. Interests. (See II 3 and 6.) "Being equally fond of his studies and his sports, he excelled in both."

2. Education. At 6 years, following the death of his mother, Cowper was, "in accordance with the cruel custom of the time, sent to a large boarding school. The change from home to a boarding

school is bad enough now; it was much worse in those days." He spent two years there, stayed out of school for a year to have his eyes treated, and then (aged 10) entered Westminster, where he continued until he was 18.

3. School standing and progress. The two years at boarding school were very miserable. William's chief affliction, he wrote later, was the cruel treatment for which he was singled out by the school bully. This persecution, endured in secret, was finally discovered; the perpetrator was expelled and William removed. At his next school, Westminster, Cowper might have been very happy had it not been for occasional fits of melancholy and symptoms of a more serious character (delusions).

4. Friends and associates. At Westminster his intimacies were formed with the "most intellectual of his schoolfellows . . . . with those who afterwards distinguished themselves." Among these friends were Robert Lloyd, George Colman, Warren Hastings, and Elijah Impey, but his special playfellow was William Russell, the great-great-grandson of Oliver Cromwell.

6. Production and achievement. Cowper's poetic gift began to show itself when he was about 14, and he won some little distinction at school with his verse, which was said to reveal "a pious mind." He translated an elegy of Tibullus and wrote an imitation of Phillips' *Splendid Shilling* which was declared by Southey to show a manner formed.

7. Evidences of precocity. Cowper's constitution is said to have "discovered at a very early season its morbid tendency to diffidence, melancholy, and despair." Later he related the only instance of his boyhood (at age 8 or less) in which his spirit conquered over his moods of depression: miserable, and dreading the appearance of the tormenting bully of his school, he recalled the Psalmist's words, "I will not be afraid of what man can do unto me," and immediately there surged up in him a feeling of courage and cheer. (See also II 1 to 6.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* After concluding his school days at 18 Cowper served for three years as clerk in a law office, spending much of his time in the home of his aunt with his cousin Theodora. He was 21 when he began to be afflicted with religious melancholy, which he finally stayed for a time through prayer and change of scene. At 23 he was called to the bar, but he did not practice law. About this time, too, he fell in love with his cousin, but her father would not consent to a marriage. A little later he made the acquaintance of some men of letters, and joined the "Nonsense Club," thus marking the beginning of a period of literary activity.

AII IQ 140 (Rel. coeff. of data, .60)

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CHARLES ROBERT DARWIN (1809–1882)

A Celebrated English Naturalist

AI IQ 135 AII IQ 140

I. *Family standing.* The Darwins came from Lincolnshire, where they were people of some position; Charles's grandfather, Erasmus Darwin, was noted as a poet, physician, and naturalist; his father took the medical degree with distinction at Edinburgh and became the leading physician of Shropshire, accumulating an abundant fortune. The maternal grandfather, Wedgewood, the famous potter, was "a truly experimental genius in artistic manufacture." The mother was gentle and sympathetic, a woman who had derived a liberal education from wide reading and intercourse with notable people.

II. *Development to age 17.*

1. Interests. Darwin's taste for natural history and especially for collecting was well developed by the time he was 8 years old; he tried to make out the names of plants and he collected shells, seals, franks, coins, and minerals with a zeal peculiar to him alone of all the children. He was humane, as a result of the teaching and example of his sisters; he never took more than a single egg out of a bird's nest, and, though fond of angling, killed the bait worms painlessly with salt and water. Love of dogs amounted with him to a passion. He was fond of solitary walks, and on one occasion he became so absorbed in thought while strolling alone that he walked off a wall.

At 10 Charles was much interested in finding new varieties of insects on a trip to the Welsh sea coast. He also made notes on the habits of birds. At 12 he was first aware of vivid delight in the scenery. At 15 or 16 he became passionately fond of shooting.

Before he was 16, Charles had developed strong and diversified tastes, much zeal for whatever interested him, and a keen pleasure in understanding any complex subject or thing. He liked Euclid and mechanics, continued to collect minerals though with but little attempt at classification, and experimented in chemistry with his brother. The head master rebuked Darwin for wasting his time on such useless subjects.

2. Education. When he was 8 years old Darwin entered a day school which he attended for a year. From his 10th to his 17th year he attended Dr. Butler's boarding school in Shrewsbury, where the usual classical course was varied with a little ancient geography

and history. At 16 Darwin entered upon his medical course at Edinburgh. Here the instruction was by lectures, and "intolerably dull."

3. School standing and progress. Darwin states that he was much slower in learning than his sister. It appears also that he believed his masters and his father considered him "a very ordinary boy, rather below the common standard in intellect." Perhaps his true ability was not recognized, for his was the original mind that retains only what itself has created. As he could never do versification, he collected a good group of verses which, with a little patching, would serve for any occasion. He learned the assigned 40 or 50 lines of Virgil or Homer while in morning chapel, but according to his own report he then forgot every verse within 48 hours.

4. Friends and associates. At school (aged 9 to 16) Darwin made many friends among his schoolmates.

5. Reading. Before he was 16 he read Shakespeare, Byron, and Scott. *Wonders of the World* first gave him the desire to travel in remote lands. At Edinburgh in his 17th year Darwin preferred reading for himself to attending lectures.

6. Production and achievement. (See II 1 for his scientific collections.)

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Darwin remained at Edinburgh until his 18th year, and here he became very fond of natural science (although he resolved never to study geology). At 17 he read a paper to the Plinian Society on his first discovery; at 18 he was noticed by Sir J. Mackintosh who said, "There is something in that young man that interests me."

At 19 Darwin entered Christ's College, Cambridge, in order to study for the ministry. He enjoyed geometry and botany and outdoor sports and pastimes; his chief passion was for collecting beetles.

At 22, after reading Humboldt's *Personal Narrative* and Sir J. Herschel's *Introduction to the Study of Natural Philosophy,* he felt a vague desire to contribute to science. In the summer he took up the study of geology and accompanied Sedgwick on a tour to North Wales, returning, however, in time for partridge shooting.

At 22, after graduating B. A. as tenth on the list and consequent to a recommendation from Hudson, the botany professor, he departed to spend the next five years (aged 22 to 27) accompanying Captain Fitzroy as naturalist on the "Beagle." This experience determined his career; he studied geology intently, collected and investigated rocks, fossils, and animals, and kept a journal which was later published. In his 23rd or 24th year he discovered that the pleasure of observing and reasoning was higher than that of sport, and the first idea of writing a book occurred to him.

AII IQ 140 (Rel. coeff. of data, .53)

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DESIDERIUS ERASMUS (GERHARD GERHARDSOHN) (1467?–1536)

A Famous Dutch Classical and Theological Scholar and Satirist

AI IQ 135 AII IQ 140

(Because of his own indifference to such matters, the dates of Erasmus' early life can be only approximate.)

I. *Family standing.* Erasmus' father belonged to a respectable family of South Holland whose members prevented his marriage to the lady of his choice. He fled to Italy, and hearing a false rumor of his betrothed's death, became a monk, but he afterward aided in the support of his illegitimate child, Erasmus. The mother, the daughter of a Dutch physician, was devoted to her son.

II. *Development to age 17.*

1. Interests. "Erasmus, from his earliest years, had a passion for learning, ... he was checked, threatened, reprimanded. He was refused access to books. But they could not be wholly kept from him, and he devoured all that he could get." And he constantly wrote verses, essays, "anything that came to hand."

2. Education. At the age of 4, he was sent to school to an uncle. When he was found to have a good voice he was taken to Utrecht and placed in the cathedral choir. "At 9 he was sent to the famous school at Deventer. His mother accompanied him and cared for him as before." He later referred to this school as "a barbarous place," meaning that it was practical rather than scientific and that "it did not introduce the pupil from the outset to the models of Latin style." Orphaned at 13, Erasmus was sent by his guardians to the school of the Brethren of the Common Life at Bois-le-Duc. Here "he spent—or, as he himself says, wasted—about three years." His education after this time was self-directed at the monastery in which he became a novitiate.

3. School standing and progress. Erasmus says (of himself) that he "made [at 4] but little progress in those unattractive studies for which [he] was not made by nature." But he was probably not a backward scholar. Though he looked upon his life (aged 9 to 13) at Deventer as a wasted time of struggle and hardship, "yet the fact is that he was making rapid progress, and at the close of his four years [there] he found himself [at 13] the equal in learning of many older lads." It is said that Sintheim, his teacher, "having heard Erasmus recite, kissed him and said, 'Go on, Erasmus, you will some day reach the very summit of learning.' " "The little boy soon showed talent, had an extraordinary memory, learned Horace and Terence by heart, and composed verse of his own." At

13 "he had made good progress, had acquired a ready style and in some good authors was *'satis paratus.'* "

4. Friends and associates. Erasmus' early associates were members of the family and teachers. Certain monks assisted his relatives in a sort of conspiracy to force the boy into the priesthood, and they were finally successful, when Erasmus was about 15. A childhood friend, in the monastery of Stein which he now entered, soon came to regard Erasmus as a kind of private tutor and kept him at his instruction whole nights long, much to the injury, Erasmus says, of "his poor little body."

5. Reading. (See II 1 and 3.)

6. Production and achievement. As a boy of about 11 Erasmus "got up mimic debates" and "challenged other boys to dispute with him on points of language or literature in approved university style." "He once composed what he considered an excellent Latin letter to [his master] for which he expected to be complimented. But the master only told him to mind his handwriting and attend to his punctuation." Between 13 and 15 "he was always at work: writing prose, writing verse—verse in preference, which came easier. He composed whole heroic poems. He addressed a Sapphic Ode to the Archangel Michael." At 15 he became a novice in the Monastery of Stein.

7. Evidences of precocity. (See II 1, 3, and 6.)

AI IQ 135 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* From the age of 15 to the early 20's, Erasmus lived in the monastery at Stein in tireless and careful study—self directed. At 20 he wrote *De Contemptu Mundi* in praise of monastic life; the work shows a great acquisition of knowledge and power. "The Bishop of Cambrai, planning to go to Italy, wanted a young scholar of good parts to help him out with his necessary Latin," and so invited the youthful scholar to join his court. Though the journey to Italy was postponed, the bishop kept the young man at the episcopal court and later gave him money enough to get to Paris. At 24 or 25 Erasmus attended the College Montagu where he acquired a knowledge of Greek that made him a few years later the most learned teacher in Paris.

AII IQ 140 (Rel. coeff. of data, .11)

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CHARLES GUILLAUME ÉTIENNE (1778–1845)

A French Dramatist, Poet, and Journalist

AI IQ 135 AII IQ 140

I. *Family standing.* Meager records state that the paternal ancestors of Étienne were members of an old family of Chamonilly who

owned, at one time, considerable property. The father, the son of an iron-master, was unable to meet the financial crisis of 1786. Of the mother and her family no record has been found.

II. *Development to age 17.*

1. Interests. None are recorded specifically, but it is noted that Étienne's gentle spirit was profoundly impressed by his military experience. "He remained faithful to his flag to the end; but, after the defeat and the insurrection, he discarded his musket and his uniform forever, and returned to seek peace at Bar-le-Duc."

2. Education. Brought up as an orphan in the home of his uncle, Étienne was instructed by the curé of the village. Later the youth became a brilliant student at Langres, Gray, and Bar-le-Duc, finishing his studies at 14. At 16 he was sent to an uncle in Lyons, to learn business methods and to enter upon a commercial career; but the Revolution frustrated the plan, for all the citizens were called to arms.

3. School standing and progress. Étienne distinguished himself by success at school.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. At 16 Étienne joined a battalion of grenadiers to fight for the rights of man; but the campaign was a matter of months only and the youth soon returned to Bar-le-Duc. The character of his employment for the next two years is not stated.

7. Evidences of precocity. (No record beyond statements in II 2 and 3.)

AI IQ 135 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Having married at 18, Étienne left his clerkship and small law practice and set out for Paris to seek his fortune, but for a time he managed only a bare existence. At 19, however, he obtained a position in a military store and in addition engaged in journalism.

At 21 he began to write little plays, usually in collaboration with other playwrights; his début as a stage writer was made with *La Réve* and from then on numerous theatres presented his works. Becoming better known, he made the acquaintance of writers such as Berton and Dalayrac.

In spite of his literary fertility, Étienne's financial condition was not much improved, for the reward of play writing was small; however, he was able at the end of his 21st year to bring his wife to Paris. During the following years he wrote copiously for the theatre, chiefly short comedies, farces, and comic operas. At 24, in collaboration with Martainville, he wrote and published a *History of the French Theatre* in four volumes, and at 25 a comedy in one act and *Les maris en bonne fortune*, a comedy in three acts.

AII IQ 140 (Rel. coeff. of data, .60)

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SIR JOHN FRANKLIN (1786–1847)

A Celebrated English Arctic Explorer

AI IQ 135 AII IQ 135

I. *Family standing.* John Franklin was descended from the same stock as Benjamin Franklin. His forebears were substantial country gentlemen. The paternal grandfather reduced the family fortunes, so that his survivors had to enter trade; but Franklin's grandmother, a wonder of ability, "of masculine capacity and great resolution of character," started a draper's shop with her son, Sir John's father, and it prospered so that the son was able to marry into a farmer's family and own a freehold. The mother, who was noted for her kindly, affectionate disposition, was the daughter of a substantial farmer.

II. *Development to age 17.*

1. Interests. At the age of 10 John, having walked across country, viewed the sea for the first time and at once vowed he would be a sailor; from that day his interests were all connected with sea life and exploration.

2. Education. At the age of 10 he was sent to school at St. Ives, and at 12 was transferred to the grammar school at Louth. Then, at 14, his father arranged for him a short cruise on a merchantman trading between Havre and Lisbon, hoping thereby to discourage the boy's love of the sea; but on his return from the trip John was more determined than ever and the father saw no other course than to secure him a berth. Besides engaging in such studies as astronomy and navigation, he mentions, in a letter, working hard in his leisure time at French and Latin.

3. School standing and progress. No mention is made of Franklin's progress in school, but on board ship he proved such an excellent pupil that he was commended by his instructors for his progress and ability.

4. Friends and associates. Captain Flinders, who commanded the "Investigator" during her Australian voyage of discovery and survey, became Franklin's lifelong friend; it was this officer who taught the lad navigation.

5. Reading. Young Franklin, in a letter to his sister, written at the age of 16, mentions reading the *Letters of Junius,* Shakespeare, Pope, Smollett, as well as books on navigation, French, and Latin.

6. Production and achievement. John Franklin was first appointed as a "volunteer" at the age of 14; eleven months later he received his baptism of fire at Copenhagen; at 15 he sailed with the "Investigator" to the South Seas, the chief purpose of the cruise being to survey the south coast of Australia. At Sydney, where the ship put in to refit, a temporary observatory was erected

and Franklin was appointed astronomical assistant; for his services he received the nickname of "Mr. Tycho Brahe" from Governor King of New South Wales.

7. Evidences of precocity. At an early age John Franklin showed evidences of great curiosity; he would persist in watching the neighbors come and go even when severely punished for so doing. He was "a lad full of adventurous aspirations"; he always tried to outdo his fellows in their projects and it is told of him that when they were specifying their own particular kinds of manly achievement, he would be satisfied with nothing less than to construct a ladder whereby to "climb to heaven." For him obstacles existed only to be overcome.

AI IQ 135 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* The officers and the crew of the "Investigator" started home from Australia but suffered shipwreck, and after rescue young Franklin found himself in Canton. Here he joined an East Indiaman and, after a brush with the French en route, during which he served as a signal lieutenant with "zeal and alacrity," he reached England in his 19th year. He joined the "Bellerophon," first as a common seaman, but he was soon promoted midshipman and served for a year blockading Brest. Then followed the battle of Trafalgar in which Franklin (aged 19½) served with "very conspicuous zeal and ability" and had a marvelous escape from death.

For two years more the youth served with his ship and was then transferred to the Bedford, with which for five years he was engaged in sea patrol work. He served in South American waters and also in the blockade of Flushing and Texel, showing skill in his profession as well as tenacity, judgment, and self-command in service. He was early appointed (about the age of 22) master's mate with the rank of acting lieutenant.

AII IQ 135 (Rel. coeff. of data, .75)

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JAKOB LUDWIG KARL GRIMM (1785–1863)

A German Philologist and Writer

AI IQ 135 AII IQ 140

I. *Family standing.* Grimm's ancestors can be traced back at least two centuries, during which they occupied pulpits or public offices. Jakob's grandfather and his great-grandfather were both pastors. His father, a lawyer and magistrate of Steinau, was a studious, methodical, lovable man who died when Jakob was 11 years old. The father's sister, a serious and rather severe woman, was devoted to her nephews and showed her interest in many practical ways.

Grimm's mother was a gentle, cheerful woman deeply devoted to her children. Her death, occurring when Jakob was 23, was the greatest sorrow in his whole life.

II. *Development to age 17.*

1. Interests. When a little lad of 6 Jakob and his brother Wilhelm ran about the countryside collecting butterflies and insects. Later Jakob developed a special interest in botany. At school he was fond of drawing.

2. Education. Grimm was first taught by his father in rather an unmethodical way, and after his parent's death by the town teacher, "from whom there was not much to learn." When he was 13 he was educated with his brother Wilhelm at their aunt's expense, at Cassel. The course included geography, natural history, anthropology, ethics, physics, logic, philosophy, philology, and history. Slow to begin, Jakob appeared backward at first; then all at once he began to learn rapidly.

3. School standing and progress. On his withdrawal from the Lyceum at Cassel, Jakob, at 17, received a certificate of merit for superior mental gifts and unlimited industry.

4. Friends and associates. Jakob's chief friend was his brother Wilhelm, one year his senior; the two were inseparable companions, whether at work or play, and had remarkably similar interests. Jakob held his mother in great esteem and loved her dearly. At the Lyceum he was friendly with Ernst Malsburg and Paul Wigand, both of whom later became writers of distinction.

5. Reading. Jakob was very fond of reading at an early age; at the Lyceum his favorite poets were Schiller and Goethe.

6. Production and achievement. His school reputation was high. (See II 3.)

7. Evidences of precocity. "Jakob learned to read at a remarkably youthful age and with remarkable speed." There is no other specific record.

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* On leaving the Lyceum, Grimm went to the University of Marburg. He was unhappy at having to leave behind his brother, who was very ill at the time; nevertheless he plunged into work in order to qualify as a lawyer as soon as possible. Grimm was especially interested in the lectures of Savigny; the latter noticed his pupil's excellence and gave him permission to use his library. Savigny and Grimm (aged 20) worked together for six months at Paris; then, on his return to Germany, Jakob began to seek out a position. At 21 he secured a post as secretary at Cassel, but resigned when the French came, about a year later. At 23 he was appointed librarian and *auditeur* to the French King of Westphalia, a position he held for five years. His official duties were more or less nominal, and he was able to devote himself to writing, reading, and copying extracts. His first published work, *On an Old German Meistersong,* appeared when he

was 26, and the first part of the famous *Fairy Stories*, written in conjunction with his brother, was published a year later.

AII IQ 140 (Rel. coeff. of data, .60)

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GEORGE GROTE (1794–1871)

A Celebrated English Historical Writer

AI IQ 135 AII IQ 140

I. *Family standing.* Grote's ancestors were active in business and the professions. His father, a banker, "had only contemptuous discouragement for his son's intellectual activities." The mother brought up her children under strict discipline, and we are told that the home life was rendered very uncongenial as a result of her "puritanical severity."

II. *Development to age 17.*

1. Interests. When George finished school, at 16, he possessed "strong leanings toward intellectual culture, and thereafter he was glad to relieve the monotony of office work by study and concert music."

2. Education. Before Grote began to attend school his mother had already taught him to read and write and had even grounded him in the rudiments of Latin, for she had a strong desire to see him excel in learning. When George was 5½ his mother induced his father to send him to the grammar school conducted at Sevenoaks by the Reverend Mr. Whitehead, and there he remained for four years. For the six years following he attended Charterhouse School, whose head master was "a man of recognized ability as a schoolmaster, and of some distinction as a scholar." The quality of many of the students there was such that "young Grote was favorably placed—between clever competition on the one hand, and encouraging assistance from the master on the other."

3. School standing and progress. At the grammar school "he evinced a decided aptitude for study, being rarely found behindhand with his tasks, and ranking habitually above boys of his age in the class to which he belonged. In the holidays his mother caused him to devote a portion of his time to his lessons, to which habit, however, he never showed, or indeed felt, any reluctance. It is probable that at Charterhouse School he "never got a flogging for any shortcomings on his performance of his tasks," although he was occasionally chastised for boyish misdemeanors.

4. Friends and associates. Familiar companions of the Charterhouse School days were the brothers George and Horace Waddington, Connor Thirlwall, H. Havelock, the soldier, and Creswell, all of whom were later well-known characters.

5. Reading. Grote had "contracted a strong taste for the classics at Charterhouse," and he continued to cultivate this interest after going into business.

6. Production and achievement. Grote's father found it convenient to employ his son in the banking-house; and so, at 16, George graduated from school into business instead of into college.

7. Evidences of precocity. (See II 1, 2, 3, and 5.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* During the ten years that he was engaged in his father's banking house, Grote (aged 16 to 26) had only his studies and the companionship of a few stimulating friends to relieve the deadening influence of the puritanical home atmosphere. He found pleasure in music, and developed a strong interest in political economy, history, and metaphysics. At 24 he wrote to a friend, "Literature still continues to form the greatest attraction to my mind." He fell deeply in love at 21, but waited for five years before marrying, in the vain hope of gaining his father's consent.

AII IQ 140 (Rel. coeff. of data, .60)

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FRANÇOIS PIERRE GUILLAUME GUIZOT (1787–1874)

A Distinguished French Historian and Statesman

AI IQ 135 AII IQ 155

I. *Family standing.* The Guizot family were honorable Protestant bourgeoisie of Nîmes. The father, an able advocate, was active in the liberal, political, and social movements of the period of the French Revolution; he died on the scaffold during the Reign of Terror. The mother came of similar stock. She was endowed with great strength of character and clearness of judgment as well as with many graceful talents; after her husband's death she devoted herself to the education of her children.

II. *Development to age 17.*

1. Interests. "Guizot's first and only playthings were books." At 15 philosophy began to attract him: "A powerful and concentrated ambition manifested itself from the very beginning of his life and seems to have animated his entire existence."

2. Education. When Guizot was 7 he lost his father on the scaffold. Thereafter his early training was under the direction of his mother. Mme. Guizot was eminently fitted for her duties as a mentor for she had been inspired in her youth with an ardent love for learning. She was firmly resolved to develop the gifts she perceived

in her sons, especially the eldest. Because the French schools did not come up to her ideal, she took her children, when her son was 11, to Geneva; and now she took part in all their lessons, which were directed by a Swiss professor. She studied for and with her children, leading with them a hard and simple life. Young Guizot had excellent instruction under superior professors, in riding, swimming, and drawing, and (in accordance with the teaching of Rousseau) in a trade—that of joiner. From 11 to 18 the boy attended the Geneva Gymnasium, where he studied classical and modern literature, history, and philosophy.

3. School standing and progress. At 15 Guizot could read in Greek, Thucydides and Demosthenes; in Latin, Cicero and Tacitus; in Italian, Dante and Alfieri; in German, Schiller and Goethe; and in English, Gibbon and Shakespeare.

4. Friends and associates. (No specific record.)

5. Reading. (See II 2 and 3.)

6. Production and achievement. Guizot became a skilful joiner and excelled in turning.

7. Evidences of precocity. Of the boy's first seven years we know only that he early showed "natural gifts" and that when he was scarcely 6 his mother found him standing on the bookcase ledge passionately declaiming the "Imprecations of Camille," which had captivated his imagination. It is said that this precocious boy had neither childhood nor youth; for his interests and activities were always those of an adult.

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Guizot was separated from his beloved mother at 18 and sent to Paris to study law. He applied himself to his task dutifully to please her, but his real taste lay in the direction of letters and he also found an attraction in politics. At 19 he was appointed tutor in the house of the minister for Switzerland and here he finally received his mother's consent to devote himself to literature. In a letter to her he said, "I feel drawn toward literature and poetry by a charm that makes me miserable," and again, "I was intended by nature for a distinguished man of letters; I am oppressed by my thoughts, and I am continually occupied in resisting inclinations."

In the following year he contributed articles anonymously to the *Publiciste,* of which his future wife was the editor. From 20 to 25 he occupied himself with literary labor; a *Dictionary of Synonyms,* the *Lives of the French Poets,* a translation of Gibbon and one of a work of Rehfus, flowed from his pen. He was attracted by German philosophy and literature and contributed articles in German to German reviews and newspapers.

In his 25th year Guizot married Mlle. de Meulan. Shortly afterward he was appointed assistant professor of history at the Sorbonne. At 27 he was appointed secretary general in the ministry of the interior—his first step on the path of politics.

AII IQ 155 (Rel. coeff. of data, .75)

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ALEXANDER HAMILTON (1757–1804)

An American Statesman

AI IQ 135 AII IQ 140

I. *Family standing.* Hamilton's father was an "attractive Scotchman" belonging to an old family of high standing, but incapable of carrying on business successfully. The mother (of Huguenot stock) was a woman of intellectual superiority and independent mind.

II. *Development to age 17.*

1. Interests. Alexander appears to have been fond of reading and of composition; but he disliked his clerkship and "wished there was a war." At college, his versatility was manifest; he found time for debates, political pamphlets, writing verses, and general society.

2. Education. Before he reached 12 years of age, Alexander was given such education as his native island of Nevis afforded; he became equally familiar with both English and French. At 15 he went to New York, where he attended a grammar school in New Jersey for one year. At 16 he passed the entrance examination to Princeton, but this college would not permit him to pass through the curriculum in three years as he planned to do and so he entered King's College (Columbia). There he studied both the literary and the medical courses.

3. School standing and progress. Hamilton "worked fast"; he planned to cover the college course in less than the regular number of years.

4. Friends and associates. Hamilton won friends and kept them.

5. Reading. His early schooling was supplemented by much miscellaneous reading.

6. Production and achievement. At 12 Hamilton became a counting house clerk; at 14 he was entrusted by his master with important missions to other islands and was even left in control of the warehouse and its correspondence during his master's absence. Letters written at 13 and 15 show attitudes beyond his years as well as a remarkable knowledge of market conditions and laws. A description of a tempest, written by Hamilton at 15, so impressed a number of persons that they determined to give him a college education.

7. Evidences of precocity. (See II 2 and 6.)

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At 17 Hamilton made an eloquent speech for the election of New York delegates to the First Conti-

mental Congress; he included arguments missed by older speakers and insisted on the duty of resisting the mother country. Before he was 18 he had published a series of pamphlets in defense of the Congress. At 18 he joined a company of volunteers, studied military science, and the following year was appointed captain of a New York company of artillery. At about this time he qualified for the B. A. degree. At the age of 20 he was appointed Washington's secretary and aide, a post which he held for four years. Believing that war was his true profession, he now wished for a command. During his 23rd and 24th years he outlined arguments in favor of a national bank based on "readings and occasional reflections," and the following year he prepared a series of six papers on statesmanship. At 23 he married the daughter of General Schuyler. At 25 he was appointed receiver of taxes for New York State, was elected to Congress, and called to the bar.

AII IQ 140 (Rel. coeff. of data, .60)

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WARREN HASTINGS (1732–1818)

An English Statesman

AI IQ 135 AII IQ 140

I. *Family standing.* Records of the Hastings family date as far back as the time of the Conqueror. Warren Hastings' father was the son of a parish priest; he attended Balliol College and then took holy orders. The mother's family appear to have been small tradespeople.

II. *Development to age 17.*

1. Interests. Warren is said to have been a dreamer; he would lie by the stream at the age of 7 living in fancy in the period when his ancestors were wealthy and great, the owners of vast estates. At Westminster School Warren (aged 10) was fond of swimming and rowing, much addicted to contemplation, ambitious, and anxious to excel.

2. Education. He learned to read at a "charity dame's school" in Churchill. The uncle, who supervised his education, placed him at 8 in a small school at Newington, where he was well taught, but where lack of good food probably stunted his growth and weakened his constitution. At 10 he was sent by his uncle to the renowned Westminster School, where he remained until he was nearly 16. A distant relative who took charge of him upon the death of his uncle then put him under the instruction of a writing master of Christ's Hospital to learn bookkeeping and caligraphy.

3. School standing and progress. Young Hastings was distinguished at Westminster for his progress in classical literature; he attracted the attention of his masters, especially the head master, by his mental aptitude and his great powers of application. At 14 he was elected, as first on the list, to a King's scholarship, and the fact was marked by the engraving of his name in gilt letters on the wall of his dormitory. A little later Warren's guardian decided to remove the boy from school that he might prepare for a career in East India. This decision was sincerely regretted by the Westminster head master, who offered to keep the boy in school at no expense, but this did not avail. Under the writing master who next instructed him Warren acquired the facility of writing well and clearly, but he made no progress in the study of finance. However, he obtained a certificate of his completion of a regular course of merchants' accounts.

4. Friends and associates. Some of his Westminster schoolmates were afterward distinguished, among others, Lord Shelbourne, later first Marquis of Lansdowne; the poet Cowper; the notorious Churchill; and Warren's lifelong friend, Sir Elijah Impey.

5. Reading. (No record.)

6. Production and achievement. At the age of 16 Hastings made application in his own excellent hand for a writership in the East India Company, and the position was granted, though perhaps through his relative's influence.

7. Evidences of precocity. (See II 2.)

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Hastings sailed for Calcutta at 17, and there he remained for two years attached to the secretarial department. At 21 he was placed in charge of an isolated silk factory. Here, promoted by degrees to positions of greater responsibility, he had become second export warehouse keeper by the age of 25. In the meantime he had taken an active part in several military skirmishes. He married at about 24.

AII IQ 140 (Rel. coeff. of data, .43)

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IMMANUEL KANT (1724–1804)

A Celebrated German Philosopher; One of the Most Influential Thinkers of Modern Times; Founder of the Critical Philosophy

AI IQ 135 AII IQ 145

I. *Family standing.* Both of Kant's parents were simple, upright people, always in the most limited circumstances. The father was

a strap-maker who worked for himself in a small way; the mother was a woman of "great natural ability" and strong religious faith.

II. *Development to age 17.*

1. Interests. (No record is preserved of other than school interests.)

2. Education. In his earliest years Kant's mother took her son into the country and there explained to him what she knew of the names and properties of plants and of the mysteries of the skies. Her instruction was not limited to one or two fields; she made a deep impression upon her son and her influence was strong in his life. Before he was 8 Kant attended the nearby school; at 8½, by the suggestion of the family patron, the educational reformer Schultz, he was sent to the new pietist college. This step was taken, doubtless largely, as a result of the mother's initiative, for it was she who first recognized the intellectual gifts of her son.

In college, under the instruction of an able Latin teacher, Kant made himself familiar with the literature of Rome; he learned long passages from the Latin poets and these he always retained. At 16½, having fulfilled the university entrance requirements in Latin and Greek, logic, geography, and history, he entered the University of Königsberg.

3. School standing and progress. Kant did good work at school, but not particularly in the direction of philosophy. From 8½ to 16½, a shy boy at the excellent pietist college, he was industrious and gave evidence of possessing a sound memory, presence of mind, and a gift for keen observation. From 9 to 14 he retained the first place in his class; no record of his standing at 15 is preserved.

The fact that he was one of those who, in entering the university (aged 16½), specified no choice of a department is perhaps indicative of his unwillingness to commit himself prematurely.

4. Friends and associates. The later celebrated philologist, Ruhnken, and the gifted Cunde, afterward a schoolmaster of note, formed with Kant a trio of like-minded schoolmates who together planned future careers as classical philologists.

5. Reading. (No record is found of other than school reading.)

6. Production and achievement. (See II 3.)

7. Evidences of precocity. Apparently no one of his schoolmates or teachers suspected Kant's genius; yet he stood at the head of his class for five years or more.

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Kant entered the University of Königsberg at 16½ and remained there until he was 22. During these years he was always in straitened means, but he acted as unpaid tutor to the two friends with whom he shared a room. Kant did not confine himself to any one faculty, but allowed his studies to range over all the arts and sciences. He derived much assistance from Knutzen, a brilliant young philosopher. Always studious and widely read, young Kant was at first sight attracted by the works of

Newton; and Knutzen, whose volumes had introduced the German student to the English scientist, allowed Kant free access to his library.

When Kant left the university he was thoroughly familiar with the Latin and to a lesser degree the Greek classics; but he had already decided that the key to philosophy can be found only in the common understanding. The year that Immanuel completed his university study his father died, and so great was the poverty of the family that he was buried at the community's expense. The youth spent the next three years as tutor in the household of a pastor, and his criticism of himself during these years was that "there could hardly be a tutor with better theory and worse practice than myself." In his 25th year his first book, *Thoughts on the True Estimation of Living Forces,* was published.

AII IQ 145 (Rel. coeff. of data, .43)

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FRIEDRICH GOTTLIEB KLOPSTOCK (1724–1803)

A Famous German Epic Poet

AI IQ 135 AII IQ 155

I. *Family standing.* Klopstock's paternal ancestors were men of standing, pastors and lawyers. His father was a lawyer, a man of ability and courage, strict, pious, and religious, who, curiously, held firmly to a belief in spooks and devils. Klopstock's mother was a simple woman devoted to her seventeen children, of whom Friedrich was the eldest.

II. *Development to age 17.*

1. Interests. From Friedrich's 8th to his 12th year he and his brothers and sisters lived in the country, where they hunted, fished, and swam. As far as intellectual interests were concerned, it is reported only that at school the boy was especially fond of Greek poetry.

2. Education. During his early boyhood in the country Klopstock received some instruction in languages from an uninspiring teacher. At 12, because family financial reverses made tutors no longer a possibility, Friedrich entered the Gymnasium of his home town. Here he studied indifferently until an opportunity to enter the Pforta School became an incentive to serious application, and he passed the entrance examinations at 15 with distinction. At

Pforta, where he remained until he was 21, he studied Latin and Greek principally, but also Hebrew, logic, mathematics, and music. The teaching in German was so poor as to be practically negligible in its influence.

3. School standing and progress. Klopstock's Latin style was especially good, and his work in Greek was noteworthy; as a result he was held in esteem by most of his teachers. During his private hours he read modern history; and he began to write poetry in German, Greek, and Latin, which increased his reputation among his school fellows.

4. Friends and associates. It is reported that Klopstock was not anxious to have many friends, but that "he loved best of all to retire to those places where he could observe the works and wonders of God in nature."

5. Reading. In his early school years he preferred Homer to Virgil, spoke of Sappho with praise, and loved Horace. Later he studied the Swiss poets, seeking from them the solution of his aesthetic problems. It is mentioned also that La Bruyere's *Caractères* influenced him.

6. Production and achievement. Always devoted to justice, Klopstock on one occasion delivered orations in the style of Livy on behalf of the lower class, whose rights he considered were being oppressed by the upper class; because of his fighting spirit he came near being dismissed. The poet's earliest dated poem was written when he was 17. (See also II 3.)

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* During his later years at Pforta, influenced by Milton and the Swiss critics, Klopstock began to plan a great epic. His final school oration was in Latin prose and on the subject which had begun to preoccupy his thought; the subject matter of the *New Testament* and the epic manner of Homer and Virgil drew him. Leaving Pforta the young poet went first to Jena, where he stayed six months, and then to Leipzig, a great intellectual center, where he stayed until he was 23. He had worked hard at both universities and had produced a number of poems. His great epic the *Messias* was in progress; the first part of it appeared in the literary magazine of the "Bremer Contributors," a group of poets. Of the first canto of this work Bodmer, the Milton translator, said: "Milton's spirit lives in the author, he has portrayed a character that is bigger than Satan. This is the great German epic for which I have longed and waited." The *Messias* was published separately in 1748 when Klopstock was 23 and after he had left the university and was engaged as a tutor. Two years later a third edition of his great work had been called for. The whole intellectual world was stirred, and Klopstock was looked upon as a demigod. In 1751, when the poet was 26, the King of Denmark made him financially independent for life, free to devote himself to his art.

AII IQ 155 (Rel. coeff. of data, .75)

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JOSEPH LOUIS LAGRANGE (1736–1813)

A Celebrated Mathematician of French Descent

AI IQ 135 AII IQ 165

I. *Family standing.* Lagrange's great-grandfather was a cavalry captain. His father was a treasurer of war, who lost a considerable fortune through rash speculation; his mother was the only daughter of a rich physician.

II. *Development to age 17.*

1. Interests. A passion for Cicero and Virgil antedated Lagrange's love for mathematics. It was a memoir of Halley, read at 16, that led him to his true field of effort.

2. Education. Lagrange entered the University of Turin at 15, and after reading Halley's work at 16 all his energies were devoted to the study and improvement of mathematical analysis. Within two years he had mastered all that had been previously done in this direction.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. Cicero and Virgil, Archimedes and Newton, as well as Halley's *On the Superiority of Analysis,* were read with enthusiasm.

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Lagrange's ability was so marked that at 19 he was appointed professor of mathematics in the school of artillery in Turin. Here all his pupils were older than he. At 22 he founded a society which became the Turin Academy of Sciences; at 23 he was elected to the Berlin Academy in recognition of his work on the *Calculus of Variations.* His paper had demonstrated the insufficiencies of the methods employed by his great scientific contemporaries and had presented with extraordinary skill and insight a new treatment of various physical phenomena. Intense application led to a bilious hypochondria when Lagrange was 25, yet at 26 a second volume of memoirs gave him permanent recognition. This work, justly entitling its author to recognition as the inventor of all methods of variations, carried Lagrange at 26 to the summit of European fame.

AII IQ 165 (Rel. coeff. of data, .60)

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ALPHONSE MARIE LOUIS LAMARTINE (1790–1869)
A Celebrated French Poet

AI IQ 135 AII IQ 150

I. *Family standing.* The Lamartines belonged to the lesser nobility, having risen from a humble origin in the seventeenth century. The poet's father was a chevalier, a soldier, a classical scholar, and a lover of poetry. The mother's family held positions in the household of the Duke of Orleans. Of the mother herself it is reported only that although a staunch Catholic she was also an admirer of Rousseau.

II. *Development to age 17.*

1. Interests. Brought up in the isolation of his father's place of exile, Lamartine lived there in an atmosphere which cultivated intellectual and natural interests. Reading and discussion and outdoor life, with swimming and skating, occupied his childhood days. At the age of 13 and while attending his second school certain mystic religious emotions transfused his life with strange happiness. At 16 the young poet thought seriously of entering upon a military career, impelled perhaps by his deep craving for experience. It was about this time that his poetic gift appeared, stimulated by a love affair.

2. Education. The child was lulled to sleep by his father's reading aloud of Voltaire, Racine, or La Fontaine. His first teachers were his parents, who had no desire to make a prodigy of him, but wished simply to acquaint him with the pleasures of an intellectual life. They made his early training a part of the game of living: he saw his parents read and he wanted to read; he saw them write and he asked for aid in forming the letters. Thus the principles of Rousseau became the basis of his education. A friend of the family began to instruct young Lamartine when (something before the age of 10) he had outgrown the general training which his family could give. At 10 he began to be instructed by the Abbé Dumont in the rudiments of Latin, at 11 he was sent to his first formal school, and at 13 he went on to a second institution, a Jesuit college whose refined and cultured atmosphere charmed the new pupil.

3. School standing and progress. At his first school Lamartine (aged 11 to 13) apparently did well after he had somewhat overcome the first shock of the restricted life. He was taken (at 12) as one of a dozen of the best scholars to see Bonaparte's review. The restraint of the school and the brutality of his fellow students made him miserable; he craved liberty—and at last he ran away. He had thoughts of suicide also, but apparently never attempted to carry them into effect. He was returned to school and required to remain there for another year. At the Jesuit college the boy (aged 13 to 17) did good work and won several prizes.

4. Friends and associates. Before he was 10 Lamartine's associates were chiefly his parents and their friends; he listened with

open ears and mind to discussions on philosophy, religion, legislation, history, poetry, fiction, and politics. At college he was associated with young men whose tastes and interests were similar to his own, three of whom became his close friends, the sharers of his and each other's emotional and intellecual experiences.

5. Reading. A taste for reading was early developed, and the demand for material soon outran the supply. Before he had reached his teens Lamartine's eyes turned longingly to the rows of volumes in his parents' sitting room, but his mother sought to moderate his yearning for knowledge and "doled out the books with a discriminating hand." The works of Mme. de Genlis, Fénelon, B. de St. Pierre, Tasso, and *Robinson Crusoe* delighted him; Voltaire transported him. On the other hand the *Fables* of La Fontaine appealed not at all. At 16 Lamartine read Chateaubriand's *Genie du Christianisme* with his college friends and was moved to tears, but he saw none the less that it was a decadent work. During a vacation spent at the home of a fellow student Lamartine found Rousseau; he feasted on this and on other forbidden fruit in the same library.

6. Production and achievement. Lamartine, at 16, on long walks out of doors, began to compose charming "flowery prayers" and mystic verses or hymns, two of which are preserved. His friends were so charmed with them that they secretly made copies.

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* In 1807 Lamartine (aged 17) left college and walked to his home at Maçon. Here he read extensively in the works of Rousseau, Voltaire, Goethe, Chateaubriand, and many others; or else, on horseback, he galloped madly over the countryside or practiced at shooting with his father. Then gradually as home life began to pall, the love of study, especially the love of literature and poetry, returned with full force; the youth tried to find solace in reading and in many slight love affairs.

At 19 he was at Lyons and "almost happy." Here he wished to study law, but this being contrary to his parents' wishes, he turned to literary pursuits. He worked hard and read furiously. Rousseau's *Émile* he found striking and he wished to make it his "friend and guide." He enjoyed the association of a man of thirty, "very learned, very charming, who reads Homer in the original . . . . and who knows all the poets and savants of the day." His friend permitted him the run of his library of some ten thousand volumes. Beside these activities Lamartine was again occupied with a love affair.

At 20 he finally renounced his law course, and the same year he was elected to the Académie de Saone et Loire. In the following year an unfortunate love affair caused Lamartine's family to send him to Italy; but there an Italian maiden took his fancy, whereupon he was recalled home. Time hung heavily on his hands and he was engulfed in melancholy (aged 22). In the following year he was seriously ill, but before his 24th birthday he had recovered and started political writing.

In 1814 he joined the Guards du Corps, but he found the occupation wearisome; long walks productive of numerous verses were his only relaxation. The next year, in spite of Napoleon's return, Lamartine remained a faithful Royalist; he was captured, but shortly released, whereupon he departed for Switzerland. On his return to France he resigned his commission, tried the diplomatic service but found it dull, and finally threw himself "into the arms of the Muses."

Lamartine's earliest poetic production is recorded at the age of 16, and thereafter he turned out verses frequently; charming little lyrics for the most part, in which sweetness blends with sadness.

AII IQ 150 (Rel. coeff, of data, .62)

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GOTTHOLD EPHRAIM LESSING (1729–1781)

A Celebrated German Dramatist and Critic

AI IQ 135 AII IQ 150

I. *Family standing.* Lessing's father was an educated Lutheran clergyman, of generous heart but conventional views, who continued throughout his life the studious interests which he had displayed with distinction at college; he was descended from a line of solid and influential citizens. The mother, daughter of the pastor whom her husband succeeded, was conventional in thought and habit, faithful and honest, but not at all remarkable.

II. *Development to age 17.*

1. Interests. It is said that Gotthold at 5 or 6 objected to being portrayed holding a bird in a bird-cage, because it seemed to him a childish pose; he preferred rather to appear with a number of the big books that he liked so well to examine. His intellectual tastes, thus early suggested, appeared definitely when, between the ages of 12 and 17, he acquired "from intercourse with his mathematical master at St. Afra some interest in physical science; an interest he retained throughout life." His master's enthusiasm so stimulated him that he would stay up till past midnight, which was contrary to the rules, working out problems or engaged in discussion.

2. Education. Lessing's first formal lessons were received in the family religious services which were held twice daily; and as the father was the author of a catechism, "it is hardly necessary to say that the instruction of his children in the dogmas of the Lutheran faith was not neglected." When the boy was 7 part of his study was under the supervision of a young student, while the elder Lessing continued his religious instruction. An artist gave lessons in drawing and aroused in young Lessing an appreciation of art.

Before he was 8, and until he had nearly completed his 12th year, the boy attended the local Latin school conducted by an energetic young rector of liberal views. He was then sent to an uncle, Pastor Linden, to receive preparation for St. Afra. At St. Afra, where he remained from 12½ to 17, the discipline was strict and much time was spent in the public reading and exposition of the Bible. Great attention was paid to theology, church history, and classical learning, and emphasis was laid strongly upon the capacity to put together Latin and Greek words in the form of "verses." Fortunately for Lessing, there were also certain free hours during which the boys might study or read what they liked.

3. School standing and progress. Young Lessing was offered a St. Afra scholarship at an age (11) when his youth precluded acceptance. Later, at 12½, a special scholarship in the gift of the Carlowitz family was conferred upon him. He then succeeded so well in the entrance examinations—written translation (German into Latin), writing of a Latin distich, Lutheran doctrine, and mathematical problems—that he was placed in the upper half of the entering class. He showed himself industrious, quick to learn, and possessed of a retentive memory, but the warning he received, when he was promoted as ninth in rank to the second class, not to diminish the good impression of his first appearance by "pert and willful behavior," suggests that his deportment did not always equal his scholastic achievement. At 13 he was promoted as eighth in his class, but it is said of him at this time that his independence and an inclination to devote himself to whatever attracted him could scarcely be restrained. At 13¾ he was promoted as sixth and his superior ability was noted in his school report, but at 14 he was summoned before the school council because of carelessness in preparing his exercise book. At 14¼ he was in the nineteenth place and his general conduct was open to the criticism it received from his master. Between 14 and 17 he is said to have cared very little for exercises in composition; "it was actual contact with the minds of ancient authors that kindled his sympathy and interest."

Of his schooldays at St. Afra, Lessing wrote to his father when he was 21: "I saw that one had to learn much there which one could make no use of in the world, and now I see it far more clearly." However, his reports steadily improved, and at the age of 15¾ he was promoted as first in his class. Then he dropped again and in a half year was down to the eighteenth place. In another six months he had risen again to the second place. After completing the six-year course in five years, he entreated his father to set him free. "The pastor . . . . disliked the idea of his son going away before the proper time; but at last . . . . consented to apply for his dismissal."

4. Friends and associates. Although Lessing realized the shortcomings of the head master of St. Afra, he was considerably influenced by the man's intelligent and vigorous mind. He also became attached to his able mathematical instructor, a man of literary and scientific culture.

5. Reading. When Gotthold was 7 his father's library was his favorite haunt; he continued his devotion to literary pursuits and at St. Afra, under the stimulating influence of his mathematical master, made "considerable acquaintance with the best contemporary literature of Germany." At 16 he read Whiston's *Theory of the Earth* and Huygen's *Kosmostheorie* and his imagination was fired; he was allowed access to the castle library and he began also to read periodical literature. His favorite authors were Theophrastus, Plautus, and Terence, but he began to enjoy the French writers also.

6. Production and achievement. A New Year's greeting to his father, written just before he was 14, on "The Likeness of One Year to Another" displays, although in a crude form, many of the characteristics of Lessing's later manner; "the style is somewhat stiff, but the ideas are logically arranged, and his meaning shines through his words with absolute distinctness." At 15 Gotthold translated three books of Euclid, and his severe instructor was satisfied with the result. The same year the boy began to collect materials for a history of mathematics. At 16 he wrote a little poem in Haller's style on "The Plurality of Worlds," which seemed to him later "tolerably well expressed." The young author also amused himself by translating and imitating Anacreon. He wrote a play, *The Young Scholar,* gave a Latin address at a religious celebration, and responded to the thesis of a graduating student on "The Long Life of Man" with a rhymed address in German on the happiness of a short life.

7. Evidences of precocity. The father used later to say that from his earliest years Gotthold learned with ease and pleasure and liked even in his infancy to while away time by glancing through books. (See also II 1, 3, 5, and 6.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Lessing's earnest desire to leave St. Afra, where he had now learned all it had to teach, was realized when at 17½ he entered the University of Leipzig. He spent two years at the university where he soon gave up the idea of studying theology and devoted his attention to the theater. He obtained the consent of his family to change his course to medicine, and this gave him greater freedom to pursue his own course. *The Young Scholar,* a comedy begun when he was still at school, was successfully produced before he was 19. A little later, on account of financial difficulties, Lessing left Leipzig for Berlin, where he supported himself by making translations and by writing criticisms, reviews, etc. He studied at the University of Wittenberg at 22 and 23, taking the degree of Master of Arts. During his university years Lessing wrote voluminously. At 22 his first volume of verse and criticism was published. At 24 his works amounted to two volumes which appeared during the year. At 25 two more volumes were published and Lessing had achieved a recognized place among literary men. The long friendships with the philosopher began the same year.

AII IQ 150 (Rel. coeff. of data, .75)

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GIUSEPPE (JOSEPH) MAZZINI (1805–1872)

An Italian Patriot and Revolutionist

AI IQ 135 AII IQ 145

I. *Family standing.* Mazzini's father was a well-to-do and charitable physician, a professor of anatomy at the University of Genoa, and secretly an ardent democrat.

II. *Development to age 17.*

1. Interests. Mazzini was fond of study, gymnastics, and fencing; he played the guitar, sang well, was clever at reciting, and had a shrewd sense of humor. At 16 he first became interested in the cause of freedom, began to study the Revolution, organized a group of friends for the discussion of such burning questions as an intellectual resurrection of Italy, and planned schemes for smuggling in books proscribed by the police. This definite activity in the cause of freedom brought peace to a mind previously so troubled over his country's wrongs that his mother had actually feared suicide.

2. Education. Of Mazzini's earliest education there is no record. At 14 he entered the University of Genoa, which at that time, however, possessed no very high name for scholarship, and enrolled there in the course preparatory to the study of law and medicine. Mazzini was a troublesome scholar, for he rebelled at formalities; he even refused to attend compulsory religious observances, just because they were compulsory.

3. School standing and progress. In school Giuseppe was a leader, although he was studious and rather retiring.

4. Friends and associates. At the university Mazzini had three close friends, two of whom later achieved recognition. One of these, humorous and brilliant, later wrote good second-rate novels; the other, who was artistic but impulsive and shallow, later became a teacher in Edinburgh.

5. Reading. Mazzini had begun to read before he was 6. At 16 in his patriotic enthusiasm he developed a passion for the works of the revolutionary writer, Foscolo, and memorized this author's *Jacopo Ortis.* He read French, Italian, English, and a translation from the German.

6. Production and achievement. (No specific record.)

7. Evidences of precocity. A delicate child, Mazzini's mind developed more rapidly than his body, and he had begun to devour books of all kinds and to show other signs of intellectual precocity when, at 6, he was taken for his first walk.

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At the university Mazzini's character and exceptional abilities endeared him to his fellow students. The surgeon's profession attracted him and he would perhaps have prepared to follow it had he not shown a disability for it by fainting the first time he stood by the operating table. At 21 he graduated in law, but he practiced at the bar only a short while; his real bent was toward literature. He read widely. His favorite authors were Dante, Shakespeare, Byron, Goethe, and Schiller; he also admired the Bible. At 21 his first article, *Dante,* appeared, but by 22 he had renounced "pure" literature and had begun to use his pen toward influencing political action. He wrote semi-political articles in the *Genovese Indicatore* and thereby attained a certain amount of fame. At 23 or 24 he entered the secret society of the Carbonari, a revolutionary organization, writing for it a memorandum in French in favor of the liberty of Spain. About this time he was sent to Tuscany to spread Carbonarism, and was arrested by the government and thrown into prison. Demanding proof of his complicity, Mazzini was successful in an action against the government and after six months was released. While in prison he thought out a plan for the organization of Young Italy, and on his release he chose banishment and the opportunity to prepare for later action rather than endure constant police surveillance at home.

AII IQ 145 (Rel. coeff. of data, .53)

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BARON DE MONTESQUIEU (CHARLES DE SECONDAT) (1689–1755)

A Celebrated French Writer

AI IQ 135 AII IQ 140

I. *Family standing.* The family of Montesquieu belonged to the genuine nobility of sword and gown. The writer's father, a second son, was chief justice of the court of Guyenne. His mother, who brought her husband the estate and castle of La Brede, was "infinitely sweet, and of a charming appearance"; she had "the mind of a clever man as regards business matters and was an unusually tender mother." Both parents were nobles of the kind that class themselves with the people; they chose for the godfather of their son, Charles, a beggar who happened to present himself at the castle gate at the time of the child's birth. A paternal uncle, Baron of Montesquieu, and *president à mortier* in the *Parlement* of Bordeaux, left his nephew his name, position, and fortune.

II. *Development to age 17.*

1. Interests. Montesquieu's taste for study was insatiable and the source of his greatest happiness. From his earliest youth he satisfied the activity of his mind by studying the immense collection of different legal codes; in reading, Greek and Roman classics were his chief delight.

2. Education. The boy passed his first three years "at nurse among the peasants, thus strengthening his constitution and learning to speak the patois." His mother, who died before he was 8 years old, inspired him in very infancy with a deep respect for the Christian religion. At an early age Charles was destined by his father for the magistracy, and as a means of preparation was sent, at 11, to the Oratorien school at Juilly. Here he remained until he was 22, engaged in the study of classical, and especially Roman, literature.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. For diversion Montesquieu read books of history and travel, the dryest tracts on jurisprudence, and the Greek and Roman classics.

6. Production and achievement. (No record.)

7. Evidences of precocity. From his infancy he "showed a quickness of intellect which presaged what he was later to become."

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 20 Montesquieu composed an essay to prove that the heathen philosophers did not deserve eternal damnation. From his Latin studies he developed his philosophy, based on Stoicism and Pyrrhonism. At 22 he left the school at Juilly, studied law, and was admitted at 25 to the *Parlement* of Bordeaux with the title of councillor. The next seven years were spent in scientific study—anatomy, botany, physics, etc. When he was 32 his *Persian Letters* made him famous in a day.

AII IQ 140 (Rel. coeff. of data, .43)

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SIR THOMAS MORE (1478–1535)

An English Statesman and Author

AI IQ 135 AII IQ 135

I. *Family standing.* More's father, a judge of the Court of Common Pleas, later transferred to the King's Bench, is described as "courteous, affable, gentle, merciful, just, and uncorrupted." The author's mother was the daughter of a London sheriff.

II. *Development to age 17.*

1. Interests. More was fond of music, and learned to play on the viol and the flute; when he was in his teens at Canterbury he would "suddenly step in among the players and make up a part of his own, which made the onlookers more sport than all the players beside." At Oxford, he says, "I loved and thought of nothing but my studies."

2. Education. Thomas was "brought up in the Latin tongue at St. Anthony's in London," where he had an excellent master, Holt, the author of a Latin grammar. At 12 or 13 he was placed in the household of Cardinal Morton, Archbishop of Canterbury, and there with other sons of the gentry he attended school and learned good breeding. The Cardinal was so delighted with the boy's wit and learning that he placed him at Oxford; and here for nearly two years he came under the influence of the famous Thomas Linacre and of Grocyn, the first scholar "who brought Greek letters into England, and publicly taught them at Oxford." Besides Greek and Latin, More learned French, arithmetic, and geometry and was proficient in rhetoric, logic, and philosophy. At 16 he entered New Inn as a law student.

3. School standing and progress. The Cardinal used to say of Thomas (when he was about 13) that he would prove a marvelous man, for the short time he was at Oxford he "profited wonderfully in the Latin and Greek tongues," and "made a great proficiency in the academical studies."

4. Friends and associates. (No definite record is found except of his excellent teachers, who exerted a great influence upon him.)

5. Reading. It is said that More read every book of history that he could procure.

6. Production and achievement. More early distinguished himself by the composition of poems in Latin and English, and he tried his hand at little comedies. The dates of these are disputed, but they appear to belong to an early period. He also planned nine pageants to be executed in tapestry or painting to represent the history of a human soul, and for these he wrote appropriate mottoes in verse.

7. Evidences of precocity. No further record.

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* More was admitted at 18 as a student at Lincoln's Inn and was accounted a worthy "utter barrister" in a remarkably short time; at 22 he was admitted to the bar. At 20 his long friendship with Erasmus (10 years his senior) began. His legal studies did not prevent him from following his literary bent. At 22 or 23 he lectured on St. Augustine's *City of God* and before he was 25 he was appointed for three successive years lecturer at Furnival's Inn. He had at one time a strong desire to join the Carthusian priesthood and at another he thought of becoming a Franciscan.

AII IQ 135 (Rel. coeff. of data, .53)

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NAPOLEON BONAPARTE (1769–1821)

Emperor of the French

AI IQ 135 AII IQ 140

I. *Family standing.* The Bonaparte family was ancient and honorable, and for many generations its members held prominent places in the social and political life of Corsica. Napoleon's father was a lawyer of moderate gifts and ambition, although inclined to frivolity and somewhat ill-balanced. The mother was of hardy peasant stock, with a firm will and a strong hand, courageous and energetic.

II. *Development to age 17.*

1. Interests. When a very little boy solitary play in a cave attracted Napoleon more than social games; but he was not entirely unsocial for his first love affair occurred when he was 5. Napoleon is said to have preferred playing with little tin soldiers to any other game; and the passion for things military, thus early apparent, continued to manifest itself. A little later he organized and led the village boys against the shepherd boys and soon was acknowledged leader of the former. At 14 he became campaign leader of the school boys in their snow fighting; and a little later, while attending the military college in Paris, he spent his free hours studying tactics and planning battles.

Soon after he was 8 years old Napoleon began to show interest in history and mathematics, so that he was called by the Sisters who taught him "the little mathematician." He began to work out problems in applied mathematics. At Brienne his interest was in history, geography, and mathematics. His enthusiasm for his homeland, Corsica, often excited the annoyance or even the hatred of his French companions. From being a loyal Corsican he became a French Revolutionary and even during his school days in Paris he began to inveigh against the government.

2. Education. At home and before he was 5 Napoleon had been taught his letters and a little more. His first school was a school for girls, to which his mother sent him in the hope that his tempestuous nature might there be subdued. He attended two more schools before he was 8. His fourth school, the College of Autun in Paris, gave the young iconoclast a half year of training in French and some preparation for the military college at Brienne, which he attended from his 10th to his 16th year; he enjoyed at the same time some training

in polite manners from a lady in the town who became interested in him. At 15 Napoleon was selected as one of five boys to attend the military college in Paris; one of the others was his own age, the other three were a year younger. During the year in the Paris college Napoleon (aged 15 to 17) made little progress, but at 16 he was able to pass the examination for graduation.

Bonaparte's real training as an officer began after he received his commission; and now beside attending classes in science and military tactics, he took lessons in dancing and deportment.

3. School standing and progress. Napoleon never learned to spell correctly, his pronunciation of French was often peculiar, and his penmanship abominable, but he learned quickly and at Autun he was recognized as an able student. Repetition always irked him. At Brienne he was soon known for his thirst for knowledge and for his superior powers as well as for his awkward speech; but it was only in the exact sciences and in content subjects that he excelled. His Latin and German were poor, while in mathematics he held the first place and even as early as his 12th year he was chosen to exhibit his work in geography. His professor of literature said his rhetoric was "granite heated by a volcano"; "he will go far if circumstances favor," wrote an instructor on the back of a school exercise. Professors of history and of mathematics thought well of him, and the young man's general capacity was rated high by the Brienne inspector who recommended him for naval training.

At 16, after passing his examination, he received this certificate: "Reserved and laborious, he is more fond of study than of any pleasure; likes to read good authors; very diligent in abstract sciences, little inquiry into others, he knows thoroughly mathematics and geography; silent, loves solitude, obstinate, haughty, exceptionally given to egoism, talks little, is energetic in his answers, prompt in action, and severe in meeting opposition; has much self-esteem, is ambitious and striving for all things. This young man is worthy of being favored." But he passed from school without distinction as 42nd in rank.

4. Friends and associates. In Corsica Napoleon was somewhat social in his tastes; in France he was entirely solitary; he had few school friends and none of these was distinguished. His teachers were men who could see his good points as well as his all-too-prominent faults.

5. Reading. At Brienne Napoleon (aged 10 to 17) began to read voraciously, especially during play hours; he was interested in works of history—Polybius, Plutarch, and the like. He spent hours over the atlas. At 12 he had read *Jerusalem Delivered* and at 15 Homer. After his appointment as lieutenant at 16 he devoted his many leisure hours to wide reading; he began to study novels and to try his hand at writing them.

6. Production and achievement. A letter written by Napoleon at 14 contains a remarkable characterization of his brother Joseph. At 16 Napoleon showed his talent for rhetoric by a stirring rodomontade full of youthful patriotism and composed in honor of Paoli's

birthday. Napoleon's professional progress is marked by his commission as second lieutenant at the age of 16.

8. Evidences of precocity. Because of the ill-shapen appearance of his head in infancy, it is said that "he was the member of the family of whom greatness was least to be prognosticated." But Napoleon's uncle said only a little later, "Joseph is the eldest of the family, but Napoleon is its head."

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Napoleon's ambition was to be a writer; he commenced a History of Corsica and sent it for criticism to Abbé Reynal. Although teeming with faults, it contained, nevertheless, the germ of something good, and the Abbé advised rewriting after further research. At this time Napoleon was engaged in reading the philosophers—Rousseau, Adam Smith, and Voltaire; the classics—Herodotus and Strabo; books concerning the glittering East, England, and Germany. From these works he turned to French history, examining its minutest details of revenue, resources, and institutions.

Ill health, together with the wretched financial condition of his family, induced a state of despondency, and so Napoleon began to hope for a political upheaval that might change the general condition of things. His illness forced him repeatedly to take leave of absence.

At 21 he became a member of a Revolutionary Club, holding the views of Reynal. It was at this period that he was described as "self-reliant and secretive, ambitious and calculating, masterful but kindly." In spite of his repeated absences, Napoleon was promoted just before his 22nd birthday to the rank of first lieutenant of artillery, but now he began to be known for his political views and was consequently disliked by his colonel.

At 22 the young officer was again on leave in Corsica. Here he planned to help the organization of the National Guard, and, having determined to be its commander, he succeeded in winning this position against the greatest odds. He was enthusiastic for the cause of liberty.

Less than a year later he was dismissed from the army for overstaying leave, but he was reinstated almost immediately with the rank of captain. He returned to Corsica after the failure of a French expedition in which he had taken part, but when the consulate severed connection with France and denounced the Bonapartes by name, Napoleon and his family were obliged to flee.

Captain Bonaparte now decided to throw in his lot with the French Republic and at the age of 24 he was in command of a battery before Toulon. After a period in which he was unable to succeed because of the inefficiency of the higher command, Napoleon was able under Dugommier's able generalship, to distinguish himself for his scientific method, intelligence, and bravery. His unusual ability was recognized; he was nominated general of brigade and at 24½ he received his commission and was assigned to the Army of

Italy, where he favored a vigorous offensive. At 25 he was in command of an (unsuccessful) expedition against Corsica; thereafter he was ordered to a command in La Vendee, where he continued his military studies until shortly afterward (aged 25¾) he was ordered to join the Army of the West.

AII IQ 140 (Rel. coeff. of data, .75)

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WILLIAM PENN (1644–1718)

An English Friend, Founder of Pennsylvania

AI IQ 135 AII IQ 150

I. *Family standing.* Penn's remote ancestors were peace-loving English squires, but his immediate forebears were seafaring adventurers of some note. His father, the Admiral, who served at one time as Governor of Kinsale, commanded two successful British campaigns, one against the Spaniards, the other against the Dutch. He was a man of great ability and some religious perception. The mother's father was a Rotterdam merchant, probably of Anglo-Irish descent.

II. *Development to age 17.*

1. Interests. Before he was 11, Penn had received some of those serious impressions that "preserved his youth in purity" and awakened pious desires in his mind. At home (aged 11 to 15) he took an active grown-up interest in the improvements of his father's estate, and (as later at Oxford) in athletic activity and competition.

At 11 he had his first religious experience: he had heard the preaching of Thomas Loe, a Quaker, and had seen how impressed were the members of his family and the servants; some time after, while alone in his room, he had a sudden sense of the reality of the existence of God and the possibility of the soul's communion with the Divine Spirit; from that moment his heart was comforted and he believed himself called to a holy life. Before he was 15 he had further impressions of a similar mystic nature.

At college Penn and his friends held religious meetings for exhortation and prayer, but by their withdrawal from the national way of worship they brought upon themselves the censure of the college authorities, whose opposition and criticism, however, served only to increase the young students' ardor. A little later, hearing Loe again, Penn's religious zeal was yet more strengthened.

2. Education. Until he was 11 William attended the new and famous Puritan grammar school at Chigwell; then during a time of family disgrace while his unfortunate father was imprisoned in the Tower for exceeding his orders, young Penn was removed from school and educated at home under a private tutor. After four years of private instruction the youth, now 15, entered Christ Church, Oxford.

3. School standing and progress. At his first school Penn gave evidence of promising talents; in his private study at home (aged 11 to 15) he was "diligent"; at Oxford he advanced rapidly in learning.

4. Friends and associates. At college Penn cultivated the acquaintance of those who were most distinguished for talents and virtue.

5. Reading. (No record.)

6. Production and achievement. An elegy in Latin verse written to commemorate the death of the King's brother is preserved from William Penn's hand.

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* While at Oxford Penn persisted in his unorthodox religious activities and as a consequence was expelled (aged 18). He returned home, but here he was thrashed and thrown out of doors by the Admiral, his father, only to be later forgiven and then sent to Paris in the hope that his serious trend of mind might be dissipated.

From Paris Penn found his way to Saumur, where he studied theology and French; then he travelled in Switzerland and Italy.

At 20 he was summoned home by his father to look after the estate, and a year later was sent to Lincoln's Inn to study law. During this period he was, according to Pepys' report, a "fine person." He was employed by the King to carry dispatches to the Admiral, then on active service against the Dutch. When the young man returned from his mission the plague was raging in London, so he went to Ireland, first serving with the Duke of Ormond and later managing his father's estates (aged 21 to 23). During this period he came, for a third time, in contact with the Quaker preacher Loe, and his religious convictions revived. At 24, in spite of the resulting strained relations with his father, Penn began to preach publicly; he published his first treatise, *Truth Exalted,* at this time. After the appearance of his next work Penn was committed to the Tower for blasphemy, where, during his eight months imprisonment, he wrote what proved to be the greatest of all his works, *No Cross, No Crown.* In the following year, 1669, his father and his friends obtained his release. He returned to Ireland, there obtained the freedom of the Friends who were in jail, and was gladly accepted as their leader.

AII IQ 150 (Rel. coeff. of data, .60)

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JEAN BAPTISTE RACINE (1639–1699)

A Celebrated French Tragic Poet

AI IQ 135 AII IQ 150

I. *Family standing.* Racine belonged to a family of the upper bourgeoisie which had strong Jansenist leanings. His paternal grandmother had entered Port-Royal des Champs; his father occupied the considerable government office of *"controleur au grenier a sel."* There is no information concerning his mother, but a maternal aunt, who became abbess of Port-Royal, exerted considerable influence upon her nephew.

II. *Development to age 17.*

1. Interests. Between 12 and 16 Racine was wounded in a fight over the civil war then raging in France; his school master, however, considered the boy's scar a token of courage. From his 17th year the young man's enthusiastic interest was in Greek literature. Poetry was his passion, but he was forced to read it by stealth, because it was forbidden by the Jansenists.

2. Education. At an early age Racine lost both his parents; consequently his childhood until he was 16 was not a happy one. In his early teens he was taught the first principles of Latin by some worthy and learned divines; from 16 to 19, as one of a small number of chosen pupils at a Port-Royal school, he was instructed in Greek and Latin by excellent masters.

3. School standing and progress. At the Port-Royal school "Racine's wonderful memory caused him to make swift progress" in Greek and Latin.

4. Friends and associates. The distinguished director of the school, M. de Sacy, "took particular pains with young Racine. Discerning his talents and hoping that he would one day distinguish himself, he took him into his own apartments and gave him the name and treatment of a son." Racine's masters praised him for his docility and his application.

5. Reading. From the age of 16 Racine "drank eagerly" from the Greek classics, especially from the works of Sophocles and Euripides; but since he was poor and could afford nothing better, he read them in the Bâsle editions, without any Latin translation. In after years he could quote whole plays from memory, so deep was the impression of these studies. He learned the Greek romance of *Theagines and Chariclea* by heart, after the sacristan had burned two copies of the book found in his possession.

6. Production and achievement. Some time between his 16th and 19th year he wrote six odes. Although he wrote Latin verse at this time more successfully than French, he preferred the French language, and began a translation, which he perfected in later life, of some hymns from the Roman breviary.

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* The directors of the Port-Royal school continued to encourage and develop Racine's talents until the youth at 19 left their care to study in the College of Harcourt in Paris. It was at this time that he initiated his career by a sonnet whose character, however, shocked and grieved Port-Royal; but an ode written at 21 found favor with the poet Chapelain (at that time ruler of the French Parnassus) and his patron, Colbert, who sent Racine "a hundred louis from the King." At 22, after a period of service on the estate of a relative, Racine visited the benefice of an uncle, in Provence; and there while enduring much solitude, he made notes on theology and on poetry, wrote a poem, *The Bath of Venus,* and began a play.

On his return to Paris Racine continued to devote his time to writing. Encouraged by Molière's approval of the play started in Provence, Racine, probably at the age of 24, wrote *La Thébaïde.* At 25 he wrote an ode which pleased the King and gained for its author a pension as well as an introduction to the elder and already famous dramatist. After the success of *La Thébaïde,* presented by Molière's troupe (when Racine was 25), the young poet collaborated with Molière in writing *Alexandre le Grand,* which was produced the following year.

AII IQ 150 (Rel. coeff. of data, .60)

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WILLIAM ROBERTSON (1721–1793)

A Scottish Historian and Clergyman in the Church of Scotland

AI IQ 135 AII IQ 140

I. *Family standing.* On the paternal side Robertson was descended from "a respectable family of long standing"; his father, a Protestant minister, "a man of learning, of refined tastes, and some poetical gifts." The mother was the daughter of a citizen of Dreghorn.

II. *Development to age 17.*

1. Interests. It is said of Robertson, when he was between 12 and 20, that he "liked to trace and elucidate moral and religious truths," and "to apply the process of reasoning to everyday subjects."

2. Education. The youth was educated first at a parochial school, and later at Dalkeith, a seminary renowned for the superiority of its masters; and he was admitted to the University of Edinburgh when he was "little more than 12 years old." (See II 3.)

3. School standing and progress. "His ardor of study (at the university) was such as soon gave indications of his future eminence"; the instruction of eminent professors increased his enthusiasm for the study of history, classical literature, and philosophy, but mathematics and mechanical speculation left him cold.

4. Friends and associates. "Many of Robertson's colleagues rose to high reputation."

5. Reading. (No specific record.)

6. Production and achievement. Robertson's notebooks, dated when he was 14 to 16, "bear marks of a persevering assiduity unexampled perhaps at so tender an age." He "displayed a diligence and laudable ambition for a boy of 15." (See also II 3.)

7. Evidences of precocity. (See II 2, 3, and 6.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 19 Robertson was licensed to preach, and at 22 he was presented to a living at Gladsmuir. At 24 he assumed the care and education of his orphaned brother and six sisters "although it must have appeared fatal to prospects of further study"; but this added burden was not allowed to interfere with his regular duties. "His superior talents, displayed in the unassuming good sense of his conversation, obtained to him the friendship and patronage of various men of rank." When the Revolution of '45 broke out Robertson, then 24, cast off his gown and shouldered his musket to join the ranks of volunteers; but he had already won notice in the service of the church and at 25 he was elected to the Scottish General Assembly.

AII IQ 140 (Rel. coeff. of data, .43)

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MAXIMILIEN MARIE ISIDORE ROBESPIERRE (1758–1794) (SURNAMED THE INCORRUPTIBLE)

A Celebrated French Revolutionist

AI IQ 135 AII IQ 145

I. *Family standing.* The Robespierre family held a distinguished position in the community, one which they had achieved through worth rather than fortune. Maximilien's father was a successful

lawyer in Arras, where, according to his son, his talents and integrity had procured for him a large clientele and an independent livelihood. His mother was the daughter of a brewer, "an adored wife and an excellent mother," who devoted her entire time to the education of her children.

II. *Development to age 17.*

1. Interests. A favorite occupation of young Robespierre's was the construction of small chapels, but his chief delight was in raising birds; when one of his beloved pigeons was lost in a thunder storm he was consumed with grief. He had little of a boy's vivacity, and his bilious, melancholy temperament, no less than his condition in life, made him fonder of study than of play; indeed, so ardent was he in his study of classical history that his teacher called him "The Little Roman."

2. Education. Robespierre appears to have received his earliest instruction from his mother; but she died when he was 9 and only a little later the father lost his reason and left home. Thus the boy at 10 became the actual head of the family; he felt his responsibility and became "astonishingly serious and reflective."

He was entered at the College of Arras by two aunts who had taken charge of the orphan children and two years later, at 12, he received from the bishop, a scholarship to the College of Louis le Grand in Paris, where he remained in attendance until he was 20.

3. School standing and progress. At 10 Robespierre entered school, and "thanks to unusual intelligence and especially to constant application to his work," he found himself soon after at the head of his class. He was one of the best pupils of the college, and it was largely due to this fact that he received a stipend at the college in Paris. When he was 14 and again when he was 16 his name was included in the honor list. He stated at a later date that the admiration of schoolmates, the praise of professors, and the school records, were sufficient proof of his success. "Endowed with intelligence enough, but above all with a perseverance in work rarely found in a youth, I was able to gain and keep the first rank in my class." This, he states, was pleasing to him especially because it gave him self-confidence.

4. Friends and associates. In Paris Robespierre's friends were Desmoulins, Duport, Dutertre, Lebrun, and Sulean; Danton was a schoolmate. Robespierre became devotedly attached to a canon of Notre Dame, M. de la Roche, who took him under his protection.

5. Reading. (No record.)

6. Production and achievement. (See II 1, 2, and 3.)

7. Evidences of precocity. (See II 2 and 3.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Of Robespierre's life in Paris little is known, but, according to his own account, he was admired by his schoolmates and praised by his professors. He was chosen to deliver a speech on one occasion, but his production, although

distinguished, was considered too Republican for the purpose for which it was designed. His school career finished, Robespierre, at 20, began his professional study of law. But he also found time to read poetry and philosophy (especially Rousseau). After completing his law studies he returned, at 23, to his home at Arras. Here his professional work brought him some prominence, and his poetical gifts contributed not a little to his advancement. His part in a curious law case made him the foremost lawyer of the town, and for his literary powers he was elected to a society, poetical in name, but political in nature. In his 25th year he was invited to become a member of the Arras Academy and he accepted the invitation for the reason which he stated thus: "I wished that my name should acquire such a popularity among my townsmen that in the days of social reorganization their eyes should turn naturally to me, and anything that would help to bring this about seemed to me desirable."

AII IQ 145 (Rel. coeff. of data, .43)

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ADAM SMITH (1723–1790)

A Scottish Political Economist

AI IQ 135 AII IQ 145

I. *Family standing.* Adam Smith's father, a solicitor privileged to practice before the supreme court, held the office of judge advocate for Scotland, a position of considerable responsibility; he was also comptroller of the customs in his district, and private secretary to the Scottish Minister, the Earl of London. Adam's mother was the daughter of John Douglas, a considerable landed proprietor; she is said to have treated her only son with "unlimited indulgence."

II. *Development to age 17.*

1. Interests. Being sickly as a boy, young Adam could not participate in the more active amusements; in consequence he developed a passion for books. At Glasgow his favorite pursuits were mathematics and natural philosophy. His first interest in labor problems came, perhaps, from his knowledge of the Kirkcaldy Naileries.

2. Education. Until he was 14 young Adam attended the Burgh School in Kirkcaldy, at the time one of the best schools in Scotland; he came then under David Miller, one of the most able schoolmasters of his day.

At 10 Adam began the study of Latin. From 14 to 17 he attended Glasgow College, studying Latin, Greek, mathematics, and moral philosophy under three eminent teachers: Alexander Dunlop (Greek);

Robert Simson, who had a European reputation (mathematics); and Francis Hutcheson, a thinker of great original power to whom Smith owed much of the bent of his ideas (political economy). At 17 Smith entered Balliol College, Oxford.

3. School standing and progress. At Kirkcaldy School he attracted attention by the extraordinary powers of his memory; at Glasgow he showed a specially marked predilection for mathematics. As one of the best students of Glasgow College he was appointed, by vote of his professors, to "one of the Snell exhibitions at Balliol College." When just 17 he was matriculated at Oxford.

4. Friends and associates. Among Adam Smith's early schoolmates was John Drysdale, a life-long friend, who became a chaplain to the King. Smith's associates were fond of him because of his unusually friendly and generous temper; and yet in company he was absent-minded, and when alone in the habit of talking to himself. At Glasgow his friendship for Matthew Stewart (later the distinguished professor) began; Dr. Maclaine, afterward embassy chaplain at The Hague, was also a valued associate. Of all his friends, Professor Hutcheson (see II 2) had the greatest influence on him.

5. Reading. (No record.)

6. Production and achievement. It is stated that in his 17th year Smith wrote an abstract of Hume's *Treatise on Human Nature* which was sent to some periodical for publication.

7. Evidences of precocity. (No further record.)

AI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Smith spent six years at Oxford at a period when there were no lectures, sciences were not taught, and tutors were negligent. However, Balliol College possessed one of the best libraries in the university; Smith read widely in many subjects and in many languages, and he employed himself frequently in the practice of translation to improve his style. He scarcely enjoyed this English experience, for he was in poor health and poor spirits the greater part of the time. He associated with the Scottish students, among whom was his friend Douglas, later a bishop, but the Northern group remained somewhat aloof from the natives. There is no record of Smith's graduation, but he is called "Dominus" on the books, perhaps itself sufficient evidence of his standing.

From the age of 23 to 25 he engaged in study at home and then began as a public lecturer to deliver a course on English literature which met with considerable success.

AII IQ 145 (Rel. coeff. of data, .53)

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EDMUND SPENSER (1552–1599)

An English Poet

AI IQ 135 AII IQ 145

I. *Family standing.* From Lancashire records it appears that Edmund Spenser's father was John Spenser, a free journeyman in the art of clockmaking. The poet in his writings claimed kinship also with Sir John Spenser of Althorpe whose three daughters married nobility.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. Probably between the ages of 9 and 17 Edmund attended the Merchant Taylors' School, where his name appears on the records of "poor scholars" and where he was assisted financially by Robert Nowell.

3. School standing and progress. (No record.)

4. Friends and associates. There is no record of any of Spenser's schoolmates achieving distinction.

5. Reading. If the translations described below were (as is generally assumed) the poet's work at the age of 16 or 17, he must at that early age have been able to read the Italian and French originals.

6. Production and achievement. Translations from Bellay and Petrarch, later claimed by Spenser as his productions, appeared when the youthful author was 16 or 17 in Van Der Nodt's book, *The Theater of Worldlings,* and much later in a book published under Spenser's own name. The translations are charming renderings showing characteristics typical of the poet's later style.

7. Evidences of precocity. (See II 6.)

AI IQ 135 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* Spenser was entered when he was about 17 at Pembroke Hall, Cambridge, as a "sizar" or poor scholar. During his university course he became learned in the Latin and Greek, well versed in French and Italian literature, and intimate with a group of clever and brilliant men. He received the B.A. degree at 21 and the M.A. at 24. Part of the interim was spent in the North where, according to tradition, his unhappy love affair with "Rosalinde" took place.

AII IQ 145 (Rel. coeff. of data, .43)

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WILLIAM MAKEPEACE THACKERAY (1811–1863)

An English Novelist, Satirist, and Critic

AI IQ 135 AII IQ 140

I. *Family standing.* Thackeray was descended on the paternal side from a family of English yeoman. His great-grandfather served as head master of Harrow School and as chaplain to the Prince of Wales; his grandfather made a fortune in the service of the East India Co. His father, a man of artistic tastes and a collector of pictures, musical instruments, and fine horses, was appointed at the age of 17, collector at Midnapir because of his proficiency in Arabic and Persian; he was judge and magistrate at Ranghyr, and later secretary to the Calcutta Board of Revenue. Thackeray's mother was a member of an old civilian family of Bengal; the maternal grandfather and an uncle were writers.

II. *Development to age 17.*

1. Interests. As early as his 7th year Thackeray ornamented his correspondence and his books and covered his papers with fanciful drawings; he liked to draw "things he thought about" more than "things he saw." In his classes in school he spent a great part of his time drawing burlesque scenes from Shakespeare, and throughout his early years he continued to enjoy the art of caricature. Between 13 and 15 years of age he earned a reputation for little poems and parodies; while at the age of 16 he said that "certain germs" of stories were "budding in his mind," and that he always felt "at home" when writing. A schoolfellow described him as having an intense admiration for the beautiful. He was known, too, as wonderfully social and good humored.

2. Education. Between 6 and 11 he attended private schools in England; between 11 and 17 he was enrolled in the overcrowded Charterhouse School.

3. School standing and progress. In his early school years Thackeray often suffered in health and spirits, but he progressed rapidly in spite of his weakness. At 6 he had learned geography, and had begun Latin and ciphering, which he liked. At the age of 11 he stood sixth in the school, although out of 26 there were only four younger than himself. His teacher nagged him constantly, calling him "an idle, profligate, shuffling boy." His schoolfellows at the Charterhouse described him as "*very* lazy" in school work, and one reports that he "never rose high in school, or distinguished himself at play, though he had afterward a scholar-like knowledge of Latin." "He had an absolute faculty of imitation, a wonderful memory, the power of acquiring. He got to love his Horace, but never was a highly classical scholar." Euclid and algebra he always disliked.

4. Friends and associates. (No record.)

5. Reading. Thackeray himself reports that he read only two novels during the term when he was 16; but about this time he read a "curious book on the Inquisition," which he described as "delectable." (See also II 6.)

6. Production and achievement. Thackeray produced many caricatures during his early years. His drawings of the Charterhouse period show considerable skill. He had a fondness for writing humorous verse full of almost impossible rhymes; one of his early parodies "Cabbages" is described as genuinely witty. Thackeray appeared in print for the first time between the ages of 13 and 15 when *An Irish Melody* appeared in a county paper. A little later he illustrated a borrowed copy of the *Birds of Aristophanes* with three humorous water-color drawings.

7. Evidences of precocity. (See II 3, 5, and 6.)

AI IQ 135 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 18 Thackeray entered Trinity College, Cambridge, where he was busy with much reading, verse writing, caricaturing, and merry living; he was also a regular contributor to a college weekly *The Snob.* At 19 or 20 he left college, spent several months on the continent, returned to London, studied law for some months, went to Paris, read, criticized, drew, and frequented the theatres. At 22 he returned to London, where he began to contribute to *The Standard,* a literary and artistic periodical. Later in the same year he became its Paris correspondent. From 23 to 26 he studied art in Paris, but without neglecting his literary activities; before he was 24 he had written for *Fraser's Magazine,* and at 25 he and his stepfather lost their fortunes in a journal they tried to establish. Thackeray was married the same year.

AII IQ 140 (Rel. coeff. of data, .75)

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LEONARDO DA VINCI (1452–1519)

A Famous Italian Painter, Architect, Sculptor, Scientist, Engineer, Mechanician, and Musician

AI IQ 135 AII IQ 150

I. *Family standing.* Leonardo's paternal ancestors for five generations were notaries, with the possible exception of his grandfather, who may have been a vineyardist. His father, Ser Piero da Vinci, was an active, intelligent, and enterprising man, who from the position of poor village notary rose to be a wealthy and much respected personage. Leonardo's mother, Caterina, was probably a simple peasant girl of the neighborhood, although one authority claims she was of good family. The liaison of the parents was of short dura-

tion. The boy was brought up in his father's household, and probably legitimized.

II. *Development to age 17.* (Development to age 20 is included here as there are no dates given between the ages of 14 and 20.)

1. Interests. Leonardo would, no doubt, have distinguished himself in the literary world in his youth, had he not been as unsteady as he was enthusiastic in his various pursuits. The multiplicity of his activities can best explain the smallness of his artistic output: he was interested in astronomy and tried to ascertain the motion of heavenly bodies; he intently studied natural history and botany; he loved music, the lyre being his favorite instrument.

2. Education. At 14 Leonardo was received into Verocchio's studio, where he had an opportunity to become familiar with all branches of art, theoretical and practical, and to meet eminent contemporaries; but the chief advantage that he received was in the beneficial stimulus to his genius conveyed through association with the older artist.

3. School standing and progress. As a little lad Leonardo mastered mathematical theory so quickly that soon he was able to propose questions which his master himself was unable to resolve. Later, under the tutorship of Verocchio, he made such rapid progress that his master soon found that he could teach him little further.

4. Friends and associates. Leonardo was very handsome, for in him strength and symmetry of form were beautifully combined. His face was strongly expressive of his ardent mind and of the frankness and energy of his character. He was the delight of society wherever he went, and an extraordinary favorite with the fair sex. He led a gay life, maintaining a numerous retinue of servants and a sumptuous equipage, and supporting his ménage by the products of his own industry.

5. Reading. (No specific record.)

6. Production and achievement. Leonardo studied music as a science and soon arrived at such perfection in playing the lute as to compose extemporaneous accompaniments to his own poetical effusions. In the art of forming models and designing, as well as in painting, he attained great excellence. While still a pupil of Verrochio he executed with such extraordinary skill the part assigned him in a picture of St. John baptizing Christ that it greatly excelled the parts of the picture executed by his master.

7. Evidences of precocity. Leonardo recalled as a very early memory that "when he was still in the cradle, a vulture came down to him, opened his mouth with his tail and struck him a few times with its tail against his lips."*

AI IQ 135 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* The earliest example of Leonardo's dated work is a pen drawing of a Tuscan valley belonging to the year 1473, when the artist was 21. To his hand are also ascribed the

*Freud finds in this incident the theme for an analysis of Leonardo.

delicate and intricate details of several of the pictures of the same period from his master's studio.

At 20 Leonardo had been enrolled as a master in the Guild of St. Luke. At 24 he left Verocchio's studio, although he had long before ceased to be an apprentice, and set up as a painter on his own account. There is no record from this time until he was 26, when a commission from the Monks of S. Donato brought forth the (unfinished) *Adoration of the Magi.* This picture gives clear evidence of the intense study and incessant labor which preceded its production, and technically it showed that the young artist had made a great advance from the somewhat narrow formulas of Verocchio's studio-pieces.

AII IQ 150 (Rel. coeff. of data, .20)

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WILHELM RICHARD WAGNER (1813–1883)

A German Operatic Composer and Poet

AI IQ 135 AII IQ 150

I. *Family standing.* Wagner's grandfather was a humble custom house official. His father, a man of superior intelligence, was a court clerk, who because of his ability and his knowledge of French was entrusted with the direction of the police department of Leipzig during the French occupation. He was a lover of poetry and passionately devoted to the drama. The mother was bright and amiable and combined practical domestic efficiency with keen intellectual animation; her family were mill owners.

II. *Development to age 17.*

1. Interests. At 6 Richard was impressed by a biography of Mozart which was read aloud, and the reports of the Greek War of Independence stirred his imagination. A little later through attendance with his actor stepfather he became acquainted with the theatre and the drama; and being present at the age of 8 at performances of the *Freischutz* and the *Jungfernkranz,* he received an impression that developed and changed his taste in music. Although when he was 9 his mother had as yet seen nothing in him to indicate any musical talent, the boy's dramatic interest was already strong. He enjoyed dressing puppets, and once started to compose a chivalric drama, but this was destroyed by the sensitive lad because his sister laughed at it. In music and in drama alike, the mysterious and the uncanny appealed most; an attraction perhaps not contradicted by

the fact that he was genuinely terror-stricken when he had to sleep apart from the family in a room that seemed peopled with ghosts—in reality the portraits that hung on its walls.

Encouraged by a first success, Wagner, at 11, determined to be a poet, and from this time duller studies ceased to interest him; but in spite of his resolute ambition, further success was, for a time, denied him. From his 12th year his love for music grew stronger and stronger, but it was not until about his 19th year that it finally displaced literature from the first rank in his affections. At 14, after visiting Leipzig, Wagner became possessed of the wish to be a university student; not from any great desire to study, but rather thus to be emancipated from school and family. His mind rapidly grew mature and independent. In the same year as his Leipzig visit he was confirmed in the church, but already he felt that his reverence for religious observances was decreasing. It is recorded that a year later, at 15, he discussed profound subjects with his playwright uncle. At 16 his musical education proceeded: he copied the scores of his beloved masters; he took lessons in harmony as long as he could support the pedantic method employed; he composed a few works, which were however, heartily condemned by everyone; and he practiced the violin for three months, although with little success. A performance by Schröder-Devrient in *Fidelio* made him keen to compose a work worthy of her; but when he found he could not, he flung himself into all kinds of youthful excesses. From his earliest years Wagner was a merry companion, fond of rambles and adventures, and always ready for jokes and pranks. His first case of boyish love was remembered from his 14th year. From his 6th to his 9th year he led an unsettled life with consequent irregular schooling.

2. Education. Richard's first school was in the country near Dresden. At 8, on the death of his stepfather, he went to live with his step-grandmother at Eisleben and here he attended a local private institution; but after his grandmother's death, which shortly occurred, the boy resided with a soap-boiler and his family, with whom he became popular for the stories he told, and then with his playwright uncle in Leipzig. At 9 Richard returned to his mother in Dresden and began his five-years' attendance at the Kreuzschule. At 12 he took music lessons "of a very mediocre description." Shortly before he was 15 Wagner was entered in the St. Nicholas School, Leipzig, in a class he had already finished in Dresden, with the result that he neglected his regular school work. At 16 he secretly took lessons in harmony from an excellent musician, but found the technique too dry for his taste.

3. School standing and progress. Wagner writes of his school days: "I can hardly judge whether I had what would be called a good head for study. I think that in general what I really liked I was soon able to grasp without much effort; whereas I hardly exerted myself at all in the study of subjects that were uncongenial." He made little effort in mathematics and paid attention to the classics only for the dramatic incidents they furnished. Greek mythology and, later, Greek history were interesting to him. When the boy was 12 his successes in philological work and recitations attracted the

attention of a young teacher who made him recite Hector's Farewell from the *Iliad* and Hamlet's celebrated monologue. In his piano lessons Richard attempted to play the Overture to the *Freischutz* at first by ear. His teacher said nothing would come of him; and he never did learn to play the piano well, although he continued to play overtures for his own amusement, without caring to perfect his technique.

4. Friends and associates. Wagner's teachers and fellow students are mentioned casually. Members of the family appear to have had considerable influence on his early development. (See II 1, 2, and 6.)

5. Reading. At 14 Wagner fell heir to his father's library. Apparently he was a wide reader in poetry and the drama; and his command of English was sufficient to enable him to study Shakespeare in the original.

6. Production and achievement. At 8 Wagner played on the piano. A poem, written when he was 11 in well constructed and well rhymed verses in commemoration of a school fellow who had died, was accepted and published. Wagner began a heroic poem in hexameter verse, but could not get through the first canto. At 13 he translated, as a self-imposed task, the first twelve books of the *Odyssey,* and also made a metrical translation of Romeo's monologue. At 14, living alone in a little garret, he devoted himself for three months to verse writing and to crystallizing a stupendous tragedy which was forming in his mind. This was the "grandiloquent and bombastic" *Leubald und Adelaide,* completed at 15, a hotch-potch of elements from various plays of Shakespeare and from Goethe's *Götz,* upon whose appearance even the playwright uncle joined the rest of the family in criticisms of lost time and perverted talents. However, Wagner had determined to set his work to music, although his training had been limited to listening. In spite of family disapproval, he secured a copy of Logier's *Method of Thorough Bass* in order to acquire the necessary technique; and he also gained congenial instruction from Hoffman's *Phantasiestücke.* At 16 he composed a sonata, a quartet, and an aria. One composition, played by the band in Kintschy's Swiss Chalet, was said by an old music critic not to contain a single good note. Wagner's musical idols at this time were Beethoven and Mozart.

7. Evidences of precocity. Wagner's stepfather appears to have recognized some superiority in the boy, for he "hoped to make something of him." (But see II 1, 2, 3, and 6.)

AI IQ 135 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* When Wagner was 17, he fell into such disgrace at school that he found it advisable to leave. Six months at another Gymnasium was not productive of any good result. An overture of this period, a poor thing, received a poorer performance, and this turned the composer's mind to the necessity of real study. At 18 he enrolled as a music student at the University of Leipzig, but here, as in the preparatory school, gambling obsessed his mind until he determined to give up the habit entirely. Now

having little taste for philosophy or aesthetics, he concentrated on counterpoint, and wrote three overtures, one of which was played at the Gewandhaus to encouraging applause. A visit to Vienna and Prague followed and Wagner (aged 19) wrote a symphony which was performed successfully at Leipzig. At this time Wagner was definitely a romanticist; he took the French and Italian schools as his models, discarding Beethoven. A romantic opera was favorably received, and at 22 Wagner was appointed musical director of the Magdeburg theatre; but in the same year and in his own theatre a hastily rehearsed opera *Das Liebesverbot* proved a failure. At 23 the young composer transferred to a similar theatrical position at Königsberg and married a woman who, although an actress, was prosaic and "never understood him." The next year Wagner moved to Riga and there conceived the outlines of his first grand tragic opera *Rienzi*. By the summer of 1838 he had finished the poem, and in the following spring when the Riga engagement terminated, he (aged 26) had already composed the first two acts.

AII IQ 150 (Rel. coeff. of data, .53)

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KARL MARIA VON WEBER (1786–1826)

A Celebrated German Composer; Famous as the Creator of Romantic Opera

AI IQ 135 AII IQ 145

I. *Family standing.* Various members of Weber's family, and especially his father, were possessed by a musical demon. This father was, first, soldier, then a civil servant, and finally director of the Weber Company of Players (his own family) which toured Germany with more or less success and very great hardship. Both parents belonged to the lesser nobility.

II. *Development to age 17.*

1. Interests. Weber's one absorbing interest was in music, and gradually he neglected all the other arts for this one. At 15 he first began to question and to examine theories, and from this time onward he walked alone intellectually.

2. Education. Weber suffered from a disease of the hip-bone which resulted in lameness, with the result that he could not walk until he was 4 years old. Before he used his legs he was taught to sing and to play on the clavier, and before the age of 6 he knew how to write. His father's mania was to make of his son a musical genius, and if possible, a second Mozart; but the frail child shrank, almost in disgust, from the frequent experiments tried upon him.

Orchestra and stage were familiar to the boy before he had learned to read. Before he was 9 he was instructed in oil, miniature, and pastel painting and in engraving. In all the arts he exhibited ability, but genius in none; he was expected by his father to begin with complete productions, yet in no case was he taught the elements of the subject. Gradually music supplanted the other arts and became the boy's one subject of study, as it was his chief interest. At 9 Weber was instructed in piano playing and in thorough bass by the Meiningen orchestra director, whose interest had been attracted by the boy's performance. And now for the first time he received serious instruction, in which fundamentals were emphasized. At 10 Weber was placed in the archiepiscopal institute for young choristers, where he was instructed by the aged Michael Haydn, who was so drawn to the boy that he gave him musical instruction without remuneration. From this teaching, however, the boy got little profit, for Haydn's strict, dry method cramped his powers. At 12 young Weber was taken to Munich by his father to learn there the operatic and the dramatic arts. He studied singing with Valesi, who was considered the greatest singing teacher of all time, and music with Kalcher, afterward the Munich court organist. Still hoping to produce a genius, and intending to print his son's future masterpieces himself, the elder Weber associated himself with a lithographer and required Karl Maria to learn the printing art; but the son returned to music the same year. At 16 he received instruction in Vienna from a skilful master who insisted on his acquiring the fundamental technique and on his learning to know the master works of the past.

3. School standing and progress. In Munich, at 12, Weber's rich imagination and budding talent daily astonished his teacher. He soon excited the envy of his oldest fellow pupils, not only as a piano-executant, but as a singer.

4. Friends and associates. Weber's wit and vivacity made him from his infancy a great favorite with all his associates. The most distinguished musicians liked him and aided his progress; various capellmeisters were his affectionate patrons; and the poet, Voss, became his friend when the young musician was not more than 16.

5. Reading. (No record.)

6. Production and achievement. When he was 11 Weber published his first compositions—six short fugues, approved by his teacher, Michael Haydn, and mentioned favorably by Rochlitz, the great musical critic of the day. At 12 he had written an opera, *The Power of Love and Wine,* but neither for this nor for a number of other pieces with which his father wished to astonish the world could a publisher be found. A fire which destroyed all of his early compositions was accepted by the young composer as an omen that he was to give up music. But the favorable criticism by Rochlitz of his next composition, and the unfavorable criticism of his new art (lithography) led him to reverse his decision. The Carlsbad theatre manager became interested in young Weber and entrusted to him the opera book he had written, which the musician (aged 13)

set to music the following year. This work, whose second act had been composed in ten days, was produced successfully in a number of cities; it was played fourteen nights in Vienna, translated into Bohemian for Prague, and presented also in Petersburg. At 15 Weber composed a little two-act comic opera, which was praised by crusty old Michael Haydn. A number of compositions were returned by the publishers to whom they were offered, but six little duets, which have since been declared by music critics to be the equal of any of his later piano compositions, were published. At 16 Karl Maria wrote his first real *Lied*, and this was followed by many charming songs whose words were supplied by Voss. Before he was 17 Weber had written his second opera. As an executive artist the youthful Weber made brilliant progress. At 13 he played in concerts in many cities with signal success and at 15 was well received in the cities of North Germany which he visited with his father.

7. Evidences of precocity. The elder Weber wished to make a prodigy of his son at any cost; the extent to which he succeeded has already been told. (See II 2, 3, and 6.)

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Weber was a popular singer of gay songs in Vienna. Nearly a year later (at 17¾) he was appointed conductor of the Breslau orchestra, where, in spite of the distrust and opposition of many of the musicians of the town, the debts which he rapidly incurred, and the cost of supporting his father, he gradually climbed the artistic ladder by his brilliant improvisations and some trifles in composition.

Shortly after this Weber accidentally drank some acid and was for months seriously ill. On his recovery he resigned his conductorship and became, first, musical director to Duke Eugen of Würtemburg, and later, secretary to his brother, Duke Ludwig. While holding this latter post, Weber offended the King and so spent a short time in prison. It was in prison, at 20, that he composed the song *Ein Steter Kampf ist unser Leben.*

After his release he found friendly associates in Dannicker the sculptor, Mattheson the poet, Spohr the violinist and composer, and Danzi the conductor. But again he got into debt; the situation was rendered worse by the embezzlement of ducal funds by his own father, and at length the King banished both father and son. Stricken with remorse, the young musician decided to devote his life to art. He studied with young Meyerbeer and began again to compose. A successful tour followed, in the course of which composition continued. His works showed increasing independence of thought and individuality.

At 25 Weber was honored by the court at Weimar, but was snubbed by Goethe, who, however, gave him a better reception seven months later. During the same year many works of merit, including the great pianoforte concerto in E flat, were published.

AII IQ 145 (Rel. coeff. of data, .53)

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JOHN WESLEY (1703–1791)

An English Clergyman, Son of Samuel Wesley; Famous as the Founder of Methodism

AI IQ 135 AII IQ 140

I. *Family standing.* Wesley's father, the earnest and laborious rector of Epworth, was a graduate of Oxford and "a busy writer." A number of his ancestors, men noted for learning and conspicuous for piety, were religious ministers who had been rejected in consequence of the Act of Uniformity. The mother was a remarkable woman of stern piety and rare judgment, with a mind both clear and strong, whose father was an Oxford man, also an "ejected minister."

II. *Development to age 17.*

1. Interests. Wesley early showed a strain of deliberation and pertinacity in his character; he would never do anything until he had considered it well. At school he preserved his health by running around the Charterhouse garden three times every morning. The master encouraged his propensity for telling stories to the other children, since this attracted them from the playground.

2. Education. The Wesley children were carefully and somewhat severely trained by their mother. Formal education began at the age of 5, the training being given at regular times for six hours each day. The boys learned their letters on the first day, then proceeded to spelling and so to reading, first a line, then a verse; and no lesson was left off until it was perfect. The whole day's task was repeated once or twice during the day, and thus the children made remarkable progress. From the age of 11 to 17 Wesley attended the Charterhouse School, and laid there a solid foundation of scholarship.

3. School standing and progress. Under their mother's tuition Wesley (aged 5 to 11) and his brothers and sisters made rapid progress. At Charterhouse, John's "quietness, regularity, and industry" made him a favorite with his teachers. At 16 he was reported by his elder brother Samuel "a brave boy, learning Hebrew as fast as he can."

4. Friends and associates. In early childhood, because of the undesirable neighborhood in which they lived, the Wesleys were restricted to association with members of their own family. No specific account is given of school-boy friendships.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. Wesley and his brother learned the alphabet in one day at the age of 5—while two of the sisters required a day and a half. At 8 years of age, grave and sedate, of strong individuality and high spirit, always wanting to know the reason for everything, he was so far beyond his years that his father admitted him to the communion.

AI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Wesley passed from Charterhouse to Christ Church, Oxford, where he became distinguished for his scholarship. It was written by a contemporary that he was "the very sensible and acute collegian, baffling every man by the subtleties of logic, and laughing at them for being so easily routed; a young fellow of the finest classical taste, of the most manly and liberal sentiments . . . . gay and sprightly, with a turn for wit and humor." He was ordained deacon at 22. From 23 to 26 he was a Fellow of Lincoln College and during the year at Oxford worked according to a regular program, his studies embracing classics, logic and ethics, Hebrew and Arabic, metaphysics and natural philosophy, oratory, poetry, divinity, and French. In a letter written about this time Wesley said: "Leisure and I take leave of one another. I propose to be busy as long as I live, if my health is so long indulged me." From 24 to 26 he returned home and acted as curate to his father, who was in failing health. At 25 he was ordained priest and at 26 he returned to Lincoln College to resume his studies and to give lectures on divinity.

AII IQ 140 (Rel. coeff. of data, .60)

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CHAPTER XVIII

CASES RATED AT AI IQ 140 TO 150

LOUIS AGASSIZ (1807–1873)

A Celebrated Swiss-American Naturalist

AI IQ 140 AII IQ 160

I. *Family standing.* Agassiz's father was a Swiss pastor and the descendant of five generations of Swiss pastors; he was also a teacher of considerable reputation. The mother was the daughter of a physician whose father was also a physician. She was always her son's most intimate friend.

II. *Development to age 17.*

1. Interests. Before he was 10 Agassiz had apparently no precocious predilection for study. He was, however, given to making collections of fishes, birds, field-mice, hares, rabbits, and guinea-pigs, whose families he reared with the greatest care. At 15 he became interested in the structure and habits of animals (birds, fishes, and insects); and at 16, discovering that authorities differed in their classifications, he formed the wish to know the truth of the matter for himself. Guided by his knowledge of the haunts and habits of fishes, he and his younger brother became adroit fishermen, independent of hook, line, or net. The only punishment he remembered receiving in childhood was inflicted for going fishing in an unsafe boat.

Agassiz was fond of indoor occupations, and when still very small, could cut and put together a well-fitting pair of shoes for his sister's dolls; he was no bad tailor, and he could make a miniature barrel that was perfectly water-tight. In spite of this fondness for quiet occupations, he was by nature active and even daring, and, after he began (at 10) to attend school, he spent his summer vacations in out-of-door activities, fishing and rambling about the country. He was an expert swimmer, but he cared neither for shooting nor for horsemanship.

At 14 Agassiz wrote to his parents: "I have resolved as far as I am allowed to do so to become a man of letters. . . . . Mr. Rickly tells me that as I have a taste for geography he will give me a lesson in Greek (gratis) in which we would translate Strabo, provided I can find one. . . . . I should like to stay at Bienne till the month of July, and afterward serve my apprenticeship in commerce at Neuchatel for a year and a half. Then I should like to pass four years at a university in Germany, and finally finish my studies at Paris, where I would stay about five years. Then, at the age of 25, I could begin to write."

2. Education. Until Agassiz was 10 his parents were his only teachers, but they did not stimulate his mind beyond the ordinary attainments of his age. In his 11th year he was sent to attend the daily nine hour school course of the College for Boys at Bienne. Entering at 15, he attended for two years the College at Lausanne, and there as a result of his superior ability and apparent special aptitude he was permitted to choose medicine as his profession.

3. School standing and progress. When Agassiz entered the Bienne Boys' College at 10 "he found himself on a level with his class." Although he was a "very clever student," he had little inclination for mathematics or for the physical and chemical sciences. "He always showed great capacity for languages, becoming quite proficient in Latin and Greek." He spoke German like a native and at Bienne he learned Italian. Geography was a favorite study. At 12 his ambition was to command the whole field of scientific nomenclature. When Agassiz was 15, the family planned to send him to enter the business house of his uncle, but his schoolmaster persuaded the parents to let the boy continue his studies and to give encouragement to his "remarkable intelligence and zeal." At 15 and 16 Agassiz was a "brilliant" student in a school where there was keen competition.

4. Friends and associates. Agassiz's closest associate was his brother Auguste (see II 1); the two had all things in common. A first love affair at 11, with a cousin, affected Louis deeply and in a peculiar way; for as a result of having his lady's name tattooed on his arm with sulphuric acid, he was visited by a severe attack of fever.

Several years later Chavannes, director of the Cantonal Museum, and Agassiz's uncle, Dr. Mathias Meyer, a physician of note in Lausanne, became interested in the youth, and it was through association with them that he came to choose the profesion of medicine.

5. Reading. It is recorded that at 14 Agassiz reported to his parents his need for books on ancient and modern geography and Greek, an Italian dictionary and a Latin grammar.

6. Production and achievement. At 10 or 11 Agassiz began a series of exercise books, containing notes on physiological, pathological, and anatomical subjects, and some general natural history; he continued the series for eight or nine years.

7. Evidences of precocity. (See II 1 and 3.)

AI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Agassiz's intellectual superiority was recognized by his professors. At 20 his first essay in natural history appeared. At 22 he took the degree of doctor of philosophy and published an ichthyology that was commended by Cuvier and that, with his other researches, won the young scientist recognition as an authority in his field. His further studies were encouraged by such men as Cuvier and Humboldt. At 23 he became M.D. and began the practice of medicine because it seemed more "practical" than

pure science. After a year of research in Paris, Agassiz was appointed professor at Neuchatel. He declined a call to Heidelberg the same year.

AII IQ 160 (Rel. coeff. of data, .75)

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PIERRE AUGUSTIN CARON DE BEAUMARCHAIS (1732–1799)

A French Polemic and Dramatic Writer

AI IQ 140 AII IQ 145

I. *Family standing.* Pierre Caron was descended from Huguenot ancestors, but his father had turned Catholic. Both the grandfather and the father were watchmakers. The latter, a versatile man of great mechanical talents, had given himself a scientific education far beyond that usually possessed by one of his craft; he had, moreover, considerable literary ability, but in spite of his gifts he was never able to achieve worldly success. Caron's mother, though an "excellent person," seems to have been of ordinary intellect. Both parents belonged to the middle or lower middle class.

II. *Development to age 17.*

1. Interests. Pierre Caron was a lively, roguish youngster, always getting into mischief. He followed his father's trade of watchmaker, but a letter still extant shows the difficulty the father experienced in keeping his son in order. (Beaumarchais did not show any decided literary bent until at a very mature age.)

2. Education. At the age of 10 young Caron was sent by his father to a "professional school" at Alfort, where he learned the rudiments of Latin, but he was recalled three years later in order to become a watchmaker.

3. School standing and progress. At the Alfort school, Caron "certainly acquired more knowledge than there was any idea of imparting to him, but his tutors never suspected his brilliant, though latent, capacity."

4. Friends and associates. Pierre Caron had "the merriest possible childhood"; he played with his sisters, and "commanded a band of little good-for-nothings, roving about either to plunder the larder of Margot, the cook, or returning at night to disturb the slumbers" of the neighbors. The boy's wild associates during the period of his apprenticeship and his uncontrolled behavior gave his father serious concern.

5. Reading. (No specific record.)

6. Production and achievement. A witty and vivacious letter in verse is preserved from Pierre's 14th year. Commenting on it at the age of 66, its author says: "According to the custom at public schools, I had been more occupied with Latin verses than with the rules of French versification. A man has always to recommence his education on getting free from the pedants."

7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 13 young Caron began to work with his father as watchmaker's apprentice, but he associated with a band of youths whose tendencies were toward gaiety, even to the point of dissipation, and his irregular habits were such that his father eventually expelled him from home. However, at 18, he was received again after signing a rigid contract, and feeling that his honor was at stake, he served his father dutifully and soberly for the next six years. At the age of 20 the young man discovered a new escapement for watches which, however, was appropriated by the famous watchmaker Lepanti, to whom the young inventor took it, the elder man announcing it as his own. Caron referred the matter to the Academy of Sciences, and the dispute was finally decided in his favor. At 23 the young inventor presented to Madame de Pompadour a watch set in a ring and employing his new device. During the same year he became acquainted, through his business as watchmaker, with Mme. Franquet, and through the instrumentality of her husband, was appointed to a minor Court office. In the following year M. Franquet died and young Caron, now assuming the additional name of Beaumarchais, married the young widow. To his extreme grief this lady, of whom he was very fond, died after about a year of married life. At 26 Beaumarchais invented an improvement for the harp which brought him the favorable notice of the King and his daughters.

AII IQ 145 (Rel. coeff. of data, .60)

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RICHARD BENTLEY (1662–1742)

An English Classical Scholar and Critic

AI IQ 140 AII IQ 150

I. *Family standing.* The Bentley family had been well-to-do yeomen and Richard's father owned a small estate. The mother was "a woman of excellent understanding" who taught her son the elements of classical learning; she was the daughter of a stone mason and builder, who had served as a major in the Civil War.

II. *Development to age 17.*

1. Interests. (No record has been found other than that in I 3 and 6.)

2. Education. Before he entered the village school Bentley was taught Latin grammar by his mother. From the age of 10 to 14 he attended the grammar school at Wakefield. At 14 he was sent by his grandfather, his father having died a short time before, to the university where he received the B.A. degree three and a half years later.

3. School standing and progress. In his early years at school Bentley was frequently punished for seeming idleness, for they "could not discover that he was pondering in his mind and fixing what he had learned more firmly in his memory than if he had been bawling it out amongst the rest of his school fellows." Yet he "went through the school with singular reputation for his proficiency, as well as for his regularity." When he entered the university Bentley was four or five years younger than was usual at matriculation. There were no prizes offered during his college years, little value being attached to scholarship honors at that period. However, the young student held the third place in achievement and, at 16, received the honorary position of Scholar.

4. Friends and associates. Bentley's university class included the poet, physician, and philanthropist, Garth, and Dennis, the literary critic. William Wotton, a juvenile prodigy who at 13 knew twelve languages and received his B.A., was a contemporary at Cambridge with whom Bentley retained friendship in after life.

5. Reading. Bentley evidently read extensively.

6. Production and achievement. He wrote verses during his college years that "have the jerky vigor of a youth whose head is full of classical allusions and who is bent on making points."

7. Evidences of precocity. (See II 3.)

AI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At 20 Bentley was appointed to the head mastership of the grammar school at Spalding, Lincolnshire. At 21 he became tutor to the son of the Dean of St. Paul's (Stillingfleet); and during the same year he obtained the Master's degree. He continued his tutorship until his 28th year, devoting much of his time to careful study and the writing of critical notes. Before he was 24 he had compiled "a sort of Hexapla," a dictionary of Hebrew, with the corresponding forms in five other languages.

AII IQ 150 (Rel. coeff. of data, .60)

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MARIE FRANÇOIS XAVIER BICHAT (1771–1802)

A Celebrated French Physiologist and Anatomist, the Founder of Scientific Histology and Pathological Anatomy

AI IQ 140 AII IQ 150

I. *Family standing.* Bichat's father was a physician. Of his mother's family there is no record.

II. *Development to age 17.*

1. Interests. (No record of any aside from his studies.)

2. Education. Bichat was sent at a very early age to the College of Nantua, to study the humanities. At 16 he entered the seminary of Saint-Yrénée, at Lyons, to complete his studies by a course in philosophy.

3. School standing and progress. He was distinguished at school "for his work, his respect for his masters, and his attachment to his fellow students." Every year at Nantua he carried off the prizes, and at Lyons he sustained public examination in physics and mathematics with the greatest distinction.

4. Friends and associates. (No specific record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. Bichat was from the first "one of those rare persons who show even in youth the qualities for which they will later become distinguished."

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* With the outbreak of the Revolution all educational work was paralyzed, and Bichat returned to Lyons to study anatomy with his father. A taste for mathematics, however, drew him back to Lyons where he followed that study as well as anatomy. At the age of 21, attracted by the fame of the anatomist, Desault, Bichat went to Paris. By sheer merit he came to the notice and favor of the master, Desault, who took him into his own home. The latter predicted for the boy a great future. When Bichat was 23 Desault died, and the pupil undertook the publication of the master's journal of surgery. In doing so he revised the work completely and created, in fact, "a code of surgical doctrine." At the same time he was busily engaged in teaching. At 25 Bichat began a course of anatomical demonstrations which were so successful that he followed them by a similar series in operative surgery, and a year later by a course in physiology.

AII IQ 150 (Rel. coeff. of data, .53)

REFERENCE

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HERMANN BOERHAAVE (1668–1738)

A Famous Dutch Physician, Professor of Botany, Medicine, and Chemistry at Leyden

AI IQ 140 AII IQ 150

I. *Family standing.* Boerhaave's father was a scholarly minister of the church, a kindly, amiable, and diligent man. The mother was a tradesman's daughter who was "inquisitive" to "the study of physick." Her death occurred when her able son was no more than 5 years of age.

II. *Development to age 17.*

1. Interests. Although, or perhaps because, his central interest was in study and research, Boerhaave was early sent by his father into the fields to recreate his mind and strengthen his constitution. As a result of this early habit, rural occupations remained throughout his life his pleasure and recreation. Interest in medical science was aroused by his own painful experience with an ulcer that resulted from an accident when he was 11, and for five years baffled the skill of the physicians.

2. Education. Designed by his father for the ministry, Boerhaave was trained at home in grammatical learning and in the first elements of the languages. At 14 he was brought by his parent to Leyden, where necessary medical treatment was more readily available than at home in the province, and there he attended the public school. After the death of his father, when Boerhaave was 16, serious financial obstacles were offered to the boy's further education, but he determined to continue his studies as long as his patrimony should hold out. At the university he was most fortunately recommended by a learned professor to a Leyden gentleman who constituted himself the young man's generous and constant patron.

3. School standing and progress. In his earliest learning Boerhaave "made such a proficiency that he was, at the age of 11 years, not only master of the rules of grammar, but capable of translating with tolerable accuracy, and not wholly ignorant of critical niceties." At the Leyden school he was placed, at 14, in the fourth class after being examined by the master. "Here his application and abilities were equally conspicuous. In six months, by gaining first prize in the fourth class, he was raised to the fifth, and in six months more, upon the same proof of the superiority of his genius, (he was) rewarded with another prize and translated to the sixth, from whence it is usual in six months more to be removed to the university." In the higher institution "the same genius and industry met with the same encouragement and applause."

4. Friends and associates. Boerhaave's scholarly father, his learned teacher Winschotan, and a number of distinguished university professors, interested themselves in furthering the young man's education.

5. Reading. (No specific record.) (See II 2 and 3.)

6. Production and achievement. (See II 3.)
7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Until he obtained a degree in philosophy, at the age of 21, Boerhaave continued his study of theology, mathematics, and languages. At 19 or 20 he won a gold medal awarded by the university for a Latin oration. His thesis for the degree, and a disputation held shortly after, were examples of his vigorous scholarship. After winning his first degree he undertook to teach mathematics to enable himself to continue his theological studies. The burgomaster of Leyden recommended him for the examination of certain manuscripts; he also advised him to study medicine in addition to theology. Boerhaave followed the advice, and at 24, after several years' study under various distinguished teachers, he took the degree of Doctor of Physic at the University of Hardewick. Disqualified from the ministry because of his reputed atheism, he entered upon the practice of medicine, at the same time continuing his scientific research. At 32 he was appointed, almost against his will—for he had refused other and perhaps more lucrative appointments—to a professorship in the University of Leyden.

AII IQ 150 (Rel. coeff. of data, .75)

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ROBERT BOYLE (1626–1691)

A Celebrated British Chemist and Natural Philosopher

AI IQ 140 AII IQ 140

I. *Family standing.* Boyle's father was "the great Earl of Cork," the descendant of an ancient family; a native of England, he was educated at Cambridge and later became lord high treasurer of Ireland and founder of the house of Cork and Orrery. The mother, a lady of great beauty and strength of character, was the daughter of the "principal secretary of state for Ireland," a writer and politician; she died when her son Robert was only a few years old.

II. *Development to age 17.*

1. Interests. Boyle was studious from his earliest childhood, and as there was scarcely anything he "more greedily desired than to know the truth, so was there scarce anything he more perfectly detested than not to speak it." So attractive did his instructor make his study that he preferred it to play, and had often to be forced to take enough recreation to preserve health. At an age unstated, Boyle was accustomed to concentrate his attention by focussing it upon such problems as the extraction of square and cube roots. He was

early fond of versification (see II 6). In Geneva (aged 12 to 15) he learned fencing, which he enjoyed, and dancing, which he abhorred. His favorite recreations were tennis playing and the reading of romances. (See II 5.)

2. Education. Boyle was early committed to the care of a country nurse and a healthy outdoor life. It is said that his stuttering was acquired by imitating some other children, and that once fixed, the habit resisted every attempt at cure.

As soon as he was old enough Robert was taught to speak both French and Latin and "to write a fair hand." At 8 he was sent to Eton, then in charge of an admirable teacher, a friend of his father, but here he appears to have made no great progress. At 12 he returned to Ireland where he was instructed by a tutor who brought back his interest in Latin literature, and under whom he greatly increased his facility in that language. Instruction in music was begun but not carried far, for lack of ability in that line in the pupil. From 12 to 15, Boyle lived in Geneva where he continued his studies, including mathematics, geography and fortifications, logic and rhetoric, under an unusually skilful private tutor.

3. School standing and progress. As a child Boyle added to a "reasonable forwardness in study," a "more than usual inclination to it." At Eton, when he was no more than 8 years old, "aptness" and "willingness to learn" were noticed in him. His teacher often excused him from the regular classes and instructed him privately, employing all the devices of skilful instruction to increase the pupil's interest in study. In his last years at Eton (at 11 and 12) and under the instruction of a pedant, the boy's earlier interest was lost. However, as he came more and more to hate "the study of bare words," an enthusiasm for history and the recounting of "gallant acts" developed.

In Geneva (aged 12 to 15) Boyle became so skilful in the use of the French tongue that he was ever after able, when occasion arose, to pass as a Frenchman. From 12 to 18, Boyle acquired during a sojourn in Italy, considerable facility in speaking and reading Italian.

4. Friends and associates. (No specific record found of others than teachers. See II 2 and 3.)

5. Reading. Before he was 10 Boyle had found in reading Quintus Curtius a treasure house which yielded him more, as he said, than Alexander's conquest had yielded that great general. The greed for knowledge was aroused. After an attack of ague from which recovery was slow, Boyle was given the adventures of Amadis of Gaul and others which accustomed his mind to a habit of roving, later regarded by him as a serious handicap. Between the ages of 12 and 15 he read an excellent French book describing the world and its inhabitants, and numerous French romances, thereby increasing his facility in the use of the French language. While in Italy he devoted himself largely to reading modern Italian history and to "the new paradoxes of the star-gazer, Galileo."

6. Production and achievement. At 12 Boyle had considerable facility in writing Latin prose and verse. English verse writing he

also cultivated at this time, but he later abandoned it while continuing to cultivate the muse in Latin and French. He learned to speak French perfectly, and Italian with comparative ease.

7. Evidences of precocity. (See II 2 and 3.)

AI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* After his return from the continent at 18 and during most of the period to 1653, his 28th year, Boyle resided in Ireland, where he was engaged in literary and scientific pursuits. He wrote a number of essays on various subjects, carried on some experiments in chemistry, and from 1647 (aged 21) was an active member of The Invisible College which was later to become the Royal Society. His quiet study was interrupted by two tours to the continent and a number of brief visits to England. Before he was 26 Boyle had achieved a considerable reputation as a philosopher and scholar.

AII IQ 140 (Rel. coeff. of data, .60)

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EDWARD G. BULWER-LYTTON, LORD LYTTON (1803–1873)

An English Novelist, Poet, Dramatist, Politician, and Orator

AI IQ 140 AII IQ 145

I. *Family standing.* Bulwer's paternal grandfather was the most learned personage among the gentry of his neighborhood. His father was an athletic, strong willed, ambitious soldier who became a general, and who was credited by his son with distinguished gifts. The mother's family was ancient and honorable. The maternal grandfather was a "Gentleman" and an able but eccentric scholar; the mother herself possessed some literary accomplishments. A wide reader, she was also a writer of verse.

II. *Development to age 17.*

1. Interests. Bulwer's early tastes, which were largely literary, were in abeyance at his first two schools; at the third they reappeared. Although he now read with pleasure and studied with ease, he was at no time less fond of sport than of study. At his third school young Edward (aged 9 to 15) was conspicuous for his athletic prowess, and although he fought only once, he was considered the best pugilist of the school.

A letter written at 14½ shows the boy's affection for his mother and his brother. At 16 he had a love affair, a silent one, with a young peasant girl. At 16 or 17 his tutor infected him with a passion for public affairs, so that he caught quite an oratorical mania, although his aspirations were still in the main poetical rather than political.

2. Education. Bulwer stated that he must have learned to read very early, as he could not recall a time at which reading was not familiar to him. In contrast to this report is the statement that when he was 6 his grandfather Lytton predicted that he would never learn his A B C's; the grandfather is said to have added to this the further prediction that the boy would live to break his mother's heart.When he was about 7 young Bulwer with "dire labour," learned to write, but even then he did not find writing necessary to composition. At his first school which he entered his 10th year he stayed two weeks, was hazed unmercifully and was miserably homesick. At the second, which he attended with his brother, he wasted two years learning marbles and trying to learn Latin. At 11 and 12 he was out of school for his health. In his 13th year he was sent to a celebrated preparatory school, where he remained three years. When he left this institution, being older in mind and appearance than his years, he considered himself too much of a man to go to school any longer, but after an unsuccessful search for a tutor he was placed in school again. Then, following a quarrel with the usher, a box on the ear from the master, and two days of solitary confinement, his mother took him away from that school. He spent the next two years at a small private school.

3. School standing and progress. It was at his third school that Bulwer (aged 12 to 15) obtained a reputation for cleverness. When he was 15 his schoolmaster, impressed with the boy's talents, wrote to the mother, "Every day convinces me more and more that any private school (whether mine or any other) will be perfect ruin to him. He has a mind of very extraordinary compass. He has an emulation rarely found, and an anxiety and attention and care about his business, very uncommon. He has a physique, force, and spirit which defy all competition here; and all these things so desirable and so fitting him for a public school are ruin to him here. No boy can control him." "Whoever lives to see him a man will find his mind employed . . . . not in the minor elegancies of life but in the Higher Branches of Occupation and Ambition. He can, and he will, if led on by a Public School, highly distinguish himself there, and in after life. He is capable of extraordinary Exertion and Self Denial also, for any Object in which he is interested. But without it, his high Spirits, his Eagerness to Pleasure, and keen enjoyment of it, may prove the ruin of his character." At his next school Bulwer (aged 15) was probably the best classical scholar, "certainly the best Greek scholar," but "the worst caligrapher and the most blundering arithmetician." Although he had not studied arithmetic beyond a weekly lesson which he had "always contrived to shirk," he now soon "conquered the mysteries of figures." At his last school he made rapid progress in the classics and in the love of letters.

4. Friends and associates. At school with his brother, Bulwer (aged 9 to 11) did not make a single friendship. Later he formed friendships with both school fellows and tutors; among the latter, the able teacher Mr. Wallington took a real interest in him and appreciated his unusual gifts. (See II 6.)

5. Reading. Bulwer's mother recited Homer, Goldsmith, and Gray to her son when he was 7, and he "marvelled and mimicked." When he was 8 he had access for a time to the library of his deceased grandfather Lytton. Here he read all of the books in English whether he could understand them or not, being especially interested in a work on calculation, accompanied and illustrated by a little wooden machine with round balls. *Amadis of Gaul* in Southey's translation made a deep impression, as did also Spenser's *Faerie Queen,* although he "could not appreciate the poetry of it and much of its wording bewildered him." At school Bulwer's early taste for English literature began to reappear. Now for the first time he read Scott and Byron, admiring the former, but not the latter. Before he was 14 he had read all the most popular English authors, had a good knowledge of English history and the progress of English literature. He knew by heart the greater part of the poems of Byron, Moore, Southey, Scott, and Campbell, those of the two latter being his favorites. After he left school (aged 15) he devoured the contents of three circulating libraries while still searching for a tutor. At 16 and 17 he read every book he could lay his hands upon.

6. Production and achievement. Bulwer's first poetic attempt (aged 7) was in praise of King Henry V and Agincourt; the same year he composed some verses addressed to a young lady with whom he was in love. Encouraged by the praise of his lady's mother, he began to improvise ballads for the entertainment of the maids. A letter written at 15½ reports an ode written on a poker, in imitation of Milton's *L'Allegro.*

Between 14 and 16 Bulwer wrote a considerable volume of verse which his tutor persuaded the boy's mother to publish. The tutor wrote to Mrs. Bulwer that all who had seen the verses agreed that they were extraordinary productions for so young a mind and that they were worthy of publication. "They display talents rarely observable in an equal degree at such an age, and breathe the language of Poetry, with an unusual degree of discretion in the application of it." Scott acknowledged "the pleasure he had received from the poems." Dr. Samuel Parr, a friend of Bulwer's grandfather, whom Macaulay called the greatest scholar of his age, wrote to Bulwer after reading his poems attentively, "When I think of your youth, my delight is mingled with astonishment at your intellectual powers. . . . . There are many vestiges of your reading in classical authors; but you have taken a wider range than is generally taken by young men: and there is a secret charm pervading all your writings, which I trace not only to your discernment, but also to your sensibility." Verses which Bulwer wrote at 16 upon the death of his first love show no remarkable feeling, but they do give evidence of considerable skill with rhyme and meter.

7. Evidences of precocity. Bulwer early attracted the attention of so eminent a person as Lady Caroline Lamb, with some verses on an incident in which she figured. Even in his infancy Bulwer was thought a prodigy by the maids, and in his hearing they prophesied his brilliant future. Bulwer himself states that he could never

remember a time when he did not have "a calm and intimate persuasion that some day he would be somebody, or do something." When he was 8 years old, after reading some metaphysics, he inquired of his mother: "Pray, mama, are you not sometimes overcome by the sense of your identity?" It was this remark that determined his mother to place him in school. (See also II 3, 5, and 6.)

AI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Bulwer's mother decided that her son should go to Cambridge, and she accordingly arranged for him to have preparatory coaching in mathematics, a subject, however, which the young poet disliked intensely. In consequence of the distasteful requirement the boy suffered from a severe attack of melancholy. At Cambridge after a first period of dejection he plunged into gay life; he had many mild love affairs; but intellectually he was not inactive. At 20 he published *Delmous and Other Poems* and entered into debates on political subjects. At 22 he won a gold medal for a poem on sculpture. Still Bulwer was not distinguished academically, for since his chief interest lay in political economy and history, he omitted the mathematical studies required for an "honors" degree.

After leaving Cambridge Bulwer spent some time in Paris, where he wrote some poems, again experienced melancholy, and again indulged in love affairs. On his return to London at 23 he published his first romance, *Falkland,* and in the following year *O'Neill,* a long poem. Shortly afterward he married, against his mother's wishes, and in consequence was disinherited. He then turned to writing for the periodical press.

When he was 25 *Pelham* (commenced at 22) was published. It attained enormous popularity, and was shortly translated into four European languages. Bulwer's literary reputation was established.

AII IQ 145 (Rel. coeff. of data, .75)

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PEDRO CALDERÓN DE LA BARCA (1600–1681)

A Celebrated Spanish Dramatist and Poet

AI IQ 140 AII IQ 140

I. *Family standing.* Calderón's father, who belonged to a good family, was secretary to the treasury board under two successive kings. The mother was descended from a noble Flemish family long settled in Castile. Both parents were "very Christian, discreet persons."

II. *Development to age 17.*

1. Interests. (No specific record found except as contained in II 3 and 6.)

2. Education. At the age of 9, young Calderón began to be instructed by the Jesuits. Later he went to Salamanca, where he studied until he was 19.

3. School standing and progress. At Salamanca Calderón "studied with distinction the scholastic theology and philosophy then in fashion, and the civil and canon law."

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. In his 14th year the youth wrote a drama, *The Chariot of Heaven* (not preserved). "From that time on he must have continued to produce dramas."

7. Evidences of precocity. Calderón's sister stated that she had heard her parents say many times that the future poet had cried aloud three times before he was born.

AI IQ 140 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* When, at 19, Calderón graduated from the University of Salamanca, he was already known as a writer for the theatre. His reputation appears to have preceded him to Madrid so that he was noticed on his arrival there by those who could promote his success. At 20 he was praised by Lope de Vega for a sonnet submitted in a contest opened by the City of Madrid. At 22 he won a third prize in a still more important contest. Again he was complimented by Lope, who inserted, in a volume containing an account of the contest and the festival it celebrated, a verse of Calderón addressed to the elder poet. The next ten years were spent largely in war service in the Milanese and in Flanders. At 35, on the death of Lope, Calderón was left indisputably pre-eminent among the poets of Spain.

AII IQ 140 (Rel. coeff. of data, .43)

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AUGUSTIN PYRAMUS DE CANDOLLE (1778–1841)

A Celebrated Swiss Botanist; Professor at the Academy of Montpellier and at Geneva, and the Principal Founder of the Natural System of Botany

AI IQ 140 AII IQ 150

I. *Family standing.* Candolle was descended on his father's side from an ancient Provençal family, of which one member, on em-

bracing the reformed religion, at the close of the 16th century, had been obliged to take refuge in Geneva. This man and his descendants, including the botanist's father, attained eminence in the service of the Swiss Cantons. Augustin's father rose at a very early age to the rank of first syndic, the highest office of the republic. His mother was of good family; her grand-uncle having been the celebrated Genevese La Fort, who stood high in the service of Peter the Great.

II. *Development to age 17.*

1. Interests. In his early youth Candolle was more interested in literature, and particularly in poetry and the drama, than in the scientific studies which afterward claimed his attention.

2. Education. From the first he showed great aptitude for study and distinguished himself by his rapid attainments in classical and general literature. When at 16 he began his scientific studies at the College of Geneva, the teaching of Vaucher inspired him to make botanical science the chief pursuit of his life.

3. School standing and progress. From his infancy, and until he was 15 or 16, Candolle had very delicate health. Restricted to a sedentary life as a consequence of this, his interest in study developed rapidly, although serious illness more than once interfered with regular school progress. When in 1792 the French army threatened Geneva, Candolle was sent to a village near Lake Neuchatel, where the charms of nature first touched and captivated him, and where he developed a lively interest in botany.

4. Friends and associates. (No specific record.)

5. Reading. (No specific record, but see II 1.)

6. Production and achievement. Candolle was distinguished in his boyhood chiefly for his facility in writing elegant verse. The masters and scholars at his school "stood always between the chances of an epistle or an epigram, according to the humor of the moment." When at the age of 14 his interest in botany was first aroused (see II 4), being without books, he classified his collection of plants according to a system which he evolved for himself.

7. Evidences of precocity. At the age of 6 or 7, Candolle exercised himself in the composition of comedies; and when, at this period, the celebrated Florian was introduced to him as the writer of charming theatrical pieces, the lad gravely responded: "Ah, you write comedies! Well, so do I!"

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* In 1796 young Candolle (aged 18) accompanied three friends on a visit to Paris, where he met some of the foremost scientists of the day. Among these, De Saussure increased his interest in botany, especially plant physiology. At 19 and 20 Augustin occupied himself with researches, including those on the generation of leguminous grains, the vegetation of the mistletoe, and the movement of sap in plants. As a result of his work he was admitted to the Physical and Natural History Society of Geneva.

At about this period he met the French mineralogist Dolomieu, who, struck by the young naturalist's ardor for study, offered him his patronage. Returning to Paris, Candolle turned to the study of medicine, but, a little later, not being able to bear the idea of taking on himself the responsibility of human suffering, he plunged again into botany. With his 21st year came his first published work, *Histoire des Plantes Grasses,* and its appearance was followed by a trip to Holland where Candolle studied politics, commerce, and education. At 22 he conceived the idea of investigating the sleep of plants. This study occupied him for two years, and as a result he was inscribed as a candidate for the French Academy. At 24 the publication of his *Astralgia* attracted the attention of Cuvier, with the result that Candolle was chosen as the substitute of the great botanist at the Collège de France. In the following year Lamarck confided to the young botanist the revision of his *Flore Française,* which, in the hands of Candolle, became "a new work."

AII IQ 150 (Rel. coeff. of data, .60)

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THOMAS CARLYLE (1795–1881)

A Celebrated Scottish Essayist and Historian

AI IQ 140 AII IQ 155

I. *Family standing.* Although Carlyle's paternal forebears included some persons privileged to bear a coat of arms, his paternal grandfather was a simple carpenter, honest, but not industrious. This craftsman's five sons were the "five fighting masons"; one of whom, Thomas Carlyle's father, was stern and rugged, a man who could not tolerate anything fictitious, although he was fond of reading. He had little patience with theology, yet, had he enjoyed a better education, he would probably have become a minister. It is characteristic of Carlyle's mother, a simple and loving soul, pious and anxious, that while her son was at college she learned writing so as to be able to correspond with him.

II. *Development to age 17.*

1. Interests. Carlyle's early interests as far as recorded were intellectual; the literatures of all cultured lands are said to have attracted him irresistibly, and at college mathematics was a favorite pursuit. The youth tried to prepare himself for the ministry, but at first he could not honestly feel any enthusiasm for it and later (aged 14 to 18) was assailed by grave doubts about it.

2. Education. At 5 Carlyle was sent to the village school, but before this, and too early for distinct remembrance, his mother had taught him to read, and a little later his father had given him a clear

idea of simple arithmetic. In the most important phase of his home instruction, moral training, Carlyle had learned to emphasize work as the one important duty of man.

At 7 the boy began the study of Latin with the village schoolmaster, but as the latter was almost completely ignorant of the language he was teaching, young Carlyle passed from him to the instruction of the pastor's son. When Thomas was 9½ it was decided to send him to the grammar school and thence, if he prospered, to the university to prepare for the ministry. It is evidence of his school success that at 13½ he was sent on to attend the University of Edinburgh.

3. School standing and progress. At the age of 7 Carlyle was examined by the minister, who reported him complete in English, and added that he must go to Latin or waste his time. Accordingly, Thomas entered upon the study of Latin, but the instruction of his ignorant schoolmaster completely bewildered him until he was "pulled afloat" by the minister's son, thereafter making rapid progress. At the grammar school Carlyle (aged 9½ to 13½) learned to read French and Latin readily, but he acquired only the barest rudiments of Greek and Latin grammar, mathematics, and the outlines of geography. As the reports from his teachers were all favorable, the elder Carlyle decided to send his boy on to the university.

Carlyle says he learned but little at Edinburgh (aged 14 to 18); indeed, in the classics and in philosophy he made practically no headway, although in mathematics he made a rapid advance. The eminent Professor Leslie, discovering his pupil's talent, exerted himself to help him; and it was perhaps because Leslie was the ablest of his teachers that "geometry shone before him as the noblest of all sciences." In spite of the efforts of certain of his instructors it seemed to Carlyle that the university presented a picture of "the blind leading the blind."

Carlyle's shyness usually prevented him from distinguishing himself. Once he tried for a prize; but although he was already noted for powers of effective speech and notably superior to all his competitors, the noise of the classroom prevented his success.

4. Friends and associates. As a child Thomas Carlyle had a preference for grown-ups; he was a "still infant," mixing little with child companions. At the age of 9½, while attending school in another town, he was teased and abused until, forgetting his mother's injunction not to fight, he left a sufficiently deep mark upon his assailant to insure his own future freedom from molestation. He had won himself a place, and one or two boys became his comrades. At the university Carlyle's friends were a select few from his own rank of life, serious, thoughtful lads, in whose circle he held the first place. He did not join the Speculative Society, of which it was said that every clever student in those days was a member.

5. Reading. Little Thomas read *Roderick Random* when he was 9½. The next specific report of his reading states that he read more

books in the university library "than were even known to the keeper." "On his own strength" he learned to read fluently in almost all cultivated languages.

6. Production and achievement. (See II 3.)

7. Evidences of precocity. It is reported that Carlyle had not spoken a word until, at the age of eleven months, hearing a child cry, he amazed the household by asking: "What ails wee Jock?" Carlyle's earliest recollections antedated his 3rd birthday. (See also II 3.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 18 Carlyle left the university without a degree. Enrolled as a student of divinity in absentia, he was soon afterward appointed mathematical master at Annan Academy. Although a capable teacher, he disliked his task and kept aloof from people, finding relief in reading poetry and studying mathematics. At this time he was considering a career of letters, and he mentioned the hope of ultimate literary fame.

After two years at Annan, Carlyle moved to a school at Kirkcaldy, and here he came in contact with Edward Irving. Irving allowed Carlyle the use of his library, and the young man read history ("Gibbon at the rate of one volume a day") and the French classics, voraciously. Two years later Mme. de Staël's book on Germany sent Carlyle (aged 22) to the literature of that country, with a resulting enlargement of his horizon. At 22 Carlyle gave up school teaching and moved to Edinburgh, where he supported himself by giving lessons and translating pamphlets from the French. He suffered bad health at this time.

During his 24th and 25th years he studied law, but with little taste or zeal. It was at this period that he was commissioned to write sixteen articles for the *Edinburgh Encyclopedia.*

At 24 Carlyle seems to have turned entirely from the law. He was working hard at German literature and translating the German classics. This work extended his knowledge and provided a passport to the publishers.

During the summer Irving and Carlyle were much together, and later the young man spent several months at Irving's home in order to devote himself to literary work. Here, at 25, he met Miss Welsh, who afterward became his wife. He immediately began a correspondence with her, and the interest aroused dispersed his ill health.

Some time before his 26th birthday Carlyle went through a spiritual experience that convinced him of the invincibility of his soul; he writes: "It is from this hour I incline to date my spiritual new birth."

AII IQ 155 (Rel. coeff. of data, .75)

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ALEXANDRE DUMAS (PÈRE) (1802–1870)

A Noted French Dramatic Author and Novelist

AI IQ 140 AII IQ 150

I. *Family standing.* Dumas's paternal grandfather, the Marquis de la Paillaterie, came from an ancient Norman family and held various positions at Court; he left Versailles to live in San Domingo, and there his son was born of a native woman, Marie Dumas. Because of his negro blood, this son was not accepted in Paris society and so he enlisted in the Queen's Dragoons, under the name of Alexandre Dumas. In two years he rose from private to general. In character he was ardent and generous, quick to resent and to forgive, a patriot devoted to the Revolution, but detesting its cruelties; a man of single purpose and brave deeds. He married the daughter of a hotel proprietor, and the distinguished child of this marriage was Alexandre Dumas *père,* the famous novelist and dramatist.

II. *Development to age 17.*

1. Interests. Young Dumas's early interests were chiefly athletic. He was skilful in throwing stones, shooting arrows, and riding horseback. At 10 he was beginning the use of arms with enthusiasm, and was becoming a very good sportsman. When Mme. Dumas received a license from the government to sell tobacco, local opinion stigmatized her as a Bonapartist, and her 12-year-old son received many a black eye in his vigorous attempts to rebut this calumny. Of his spiritual development, it is recorded that his first communion, at the age of 13, filled him with deep emotion; and that daily walks to the cemetery, solemn moments at his father's grave, and the sight of fresh graves added year by year, made a lasting impression.

2. Education. Upon the death of the father, Dumas's mother went with her two children to live with her parents. In his grandparents' home when he was 4 young Dumas learned to read, through a curiosity to discover the history, customs, and instincts of the animals whose pictures he saw in Buffon's *Natural History.* The same year he was taught to write by his sister. When the boy was 10 it was decided to send him, although much against his own desire, to the seminary at Soissons to become a priest. He had yielded to his mother's wishes, but the gibes of a young lady cousin on the eve of his departure were more than he could bear and he

ran away for a few days. Pardoned by his mother for his failure in obedience, he was allowed to remain at home and was placed under the kind Abbé Guzoire for instruction. Thus at 12 he was enjoying a light course of instruction: a few lessons a week in Virgil and Tacitus from the priest, in addition to those in writing and arithmetic from the village schoolmaster. At 15 he was apprenticed to the local notary.

3. School standing and progress. From 7 to 10 Dumas took lessons on the violin, but at the end of that time the professor declared that teaching him music was a hopeless task. Much more attractive to the boy were his lessons in the use of arms, begun when he was 10. In translating Virgil and Tacitus he used a "crib," but he voluntarily committed to memory three or four hundred lines of the *Æneid*. He had not taste for arithmetic, but he developed a very neat and rapid handwriting. Convinced of his own ignorance by contact with the intelligent Adolphe de Leuven, Dumas, at 16, began lessons in Italian and German. The latter language never became more than a readable one to him, but Italian grew to be almost a second mother-tongue.

4. Friends and associates. When he was about 10 Dumas was not generally liked by the other children, for he was vain, insolent, and full of self-confidence and self-admiration. He cried very easily, and for this the boys teased him. At 13 or 14 he was much influenced by a fashionable young man, Auguste Lafarge, from Paris, who visited the town and spent his money in a lordly manner. Lafarge circulated some verses of his own composition which were much talked of locally, and which first suggested to Dumas the idea of fame. At 15 the youth had his first love affair. The following year his friendship began with Adolphe de Leuven, son of a Swedish nobleman and a young man of literary ambitions.

5. Reading. At the age of 4 Dumas could be kept quiet for a whole evening by an illustrated edition of Buffon's *Natural History*. His passion for reading led him at an early age to the newspapers, *Robinson Crusoe*, the Bible, Doudin and the Idomeneus, and several books of mythology. At 12 Virgil fascinated him by the lulling cadence of his verse, his subtle readings of the human heart, and his intuitions of eternal truth.

6. Production and achievement. (No record before 17.)

7. Evidences of precocity. Dumas's first recollections were of a visit to Paris when he was just 3, upon which occasion he was taken to see the widow of Louis Phillipe d'Orleans and was presented to Brune and Murat. He remembered the gold piece given him on the first visit and the game he played with Brune's sword and Murat's cocked hat. Taken to call upon Pauline Bonaparte a few months later, it was the contrast between the swarthy skin of his father and the fair skin of the Corsican that impressed him. Just after the death of his father and before he was 4, the inconsolable child was told that God had taken his father to Heaven: soon afterward he was found climbing up the stairs, carrying a gun; he explained that he was going to Heaven to kill God, who had killed

his father. At 5 or 6 young Dumas read so well that he was filled with complacency, and used to join in the conversations of his elders, dragging in the information and ideas he had acquired from his reading. One morning the guests at breakfast asked the news of the day, but no one had seen the morning paper except Alexandre, aged 7, who thereupon reported, "Oh—there is nothing of any importance in it—only a meeting of the Legislature."

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* The first dramatic work that made any impression on Dumas was *Hamlet,* which he saw performed by Ducis in Soissons. This so filled him with vague longings that he devoted three days to learning the part of Hamlet, neglecting meanwhile his legal duties. Adolphe de Leuven, who had come under the influence of the drama in Paris, returned to seek Dumas's partnership. Together they constructed a patriotic vaudeville, *Le Mayor de Strasbourg,* and other dramas, dreaming of an open path to fame; but none of these works was accepted. After a few months as a clerk to a notary at Crépy, Dumas, at 21, encouraged by a prophetic interview with the actor Tolma, went to Paris with but fifty francs in his pocket to seek his fortune. His excellent penmanship secured him a government post as clerk. His immediate superior was a sympathetic literary gentleman who advised Dumas what to read, suggesting particularly Shakespeare, Goethe, Byron, Fenimore Cooper, and, for Dumas most fruitful of all, Scott and Schiller.

The friendship of the De Leuvens gave the youth a certain amount of social intercourse. At 22, the year that Alexandre Dumas *fils* was born, the young father became something of a dandy. It was during this year that in his first duel he vanquished his opponent with the sword.

La Chasse et l'Amour, written with two partners, was his first play to be produced. With his share of the profits Dumas published a thousand copies of three novelettes, but he sold only four. When he was 23 many of his verses appeared in print, but Dumas cared nothing for them except as a natural outlet for his emotions; the drama was his serious purpose. Another light play, *La Noce et l'Interrement,* was performed the next year. The author was inspired to renewed efforts by the visit to Paris of an English company with a Shakespearian repertoire. The result was *Christine,* which was accepted, but its production was postponed and later the play was re-written. Meanwhile Dumas wrote *Henri III et sa Cour,* produced when he was 26; its success was immediate, and the name of Alexandre Dumas was on every one's lips.

AII IQ 150 (Rel. coeff. of data, .60)

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WILLIAM HAMILTON (1788–1856)

A Scottish Philosopher

AI IQ 140 AII IQ 160

I. *Family standing.* The Hamiltons were an ancient family, the first of the line having been slain at Flodden; subsequent members included military men, a minister, and a professor of divinity. William Hamilton's grandfather and father had successively held the chair of anatomy and botany at the University of Glasgow. His mother was also a member of an ancient family. Although without any considerable early education, she was of fine character, well read, and of a cultivated mind. Anxiously solicitous for the welfare of her children, she desired to give them every advantage that lay in her power. William's attachment for her was deep and lasting.

II. *Development to age 17.*

1. Interests. As a child Hamilton enjoyed and excelled in feats of physical strength; and he read deeply, being attracted to the romantic and weird. Tender-hearted, he acted as a protector of the weak.

2. Education. William's father died when his elder son was scarcely 2, and the burden of the boy's education accordingly fell on his mother. After his earliest childhood William attended the Glasgow public schools and in addition received the instruction of a private tutor. At 9 he entered the grammar school and progressed so rapidly that at 12 he was attending junior Latin and Greek classes at the university. In the following year he and his younger brother were sent to school in England, where they remained for two years. On their return William (aged 15) re-entered the university and attended the senior classes in classics and in logic and moral philosophy. A year later, medicine, chemistry, and mathematics were included in his course of study.

3. School standing and progress. Although a private tutor remarked that William (aged 16) was inclined to be idle, he distinguished himself at the university by carrying off the highest honor, which was awarded by vote of the class.

4. Friends and associates. A constant associate of his youth was his younger brother, Thomas, who after retirement from a career in the army, became a writer.

5. Reading. As a child William delighted in *Pilgrim's Progress* and the *Apocalypse;* at a later date he still preferred highly colored romance and enjoyed *The Arabian Nights,* Mrs. Radcliffe's novels, and *Frankenstein.* At the age of 15 in a letter to his mother he mentions certain books on his desk, and at 16 he started to collect a library. His choice of reading included philosophy, classics, the *Encyclopedia Britannica,* and works on medicine, chemistry, botany, history, and heraldry.

6. Production and achievement. (No specific record.)

7. Evidences of precocity. It is reported that William's mother early "discerned in him indications of those qualities of mind which

became afterward so remarkable." But his biographer states that "there was, apparently, no remarkable intellectual precocity about him."

AI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Hamilton continued his study at the University of Glasgow until, at the age of 19, in conformity with his mother's wish that he receive the best possible training, he entered Balliol College, Oxford, where he remained for four years. His many friends, among them men who later became distinguished, were impressed by his courtesy, kindness, and force of intellect. He enjoyed the university life, pursued his studies with zeal, and gained a great reputation as a scholar. Aristotle's works he studied with exceptional thoroughness. At 23 he took his examination in arts and letters and passed with the greatest distinction. Lockhart, a university contemporary, says: "Taken altogether his examination—for scholarship and science— . . . . has never been surpassed." Ten years later the master of Balliol wrote: "Hamilton combined a clear and vigorous intellect with ardent and indefatigable zeal. . . . . In his public examination . . . . he obtained the highest distinction the examiners could bestow." His Oxford career finished, Hamilton decided on the law as a profession, although he had undergone preparation both at Glasgow and at Oxford for medicine. For the next three years (aged 23 to 26) he studied law at London with occasional visits to Oxford.

AII IQ 160 (Rel. coeff. of data, .82)

REFERENCE

Veitch, John, *Memoir of Sir Wm. Hamilton,* London, Blackwood, 1869.

THOMAS HOBBES (1588–1679)

A Celebrated English Philosopher

AI IQ 140 AII IQ 135

I. *Family standing.* Hobbes's father, a vicar, is described as a "good fellow" and a "choleric man," of no pretense to learning and setting no store by it. He fled from his parish "because of a fight with another parson." The mother was descended from a family of yeomen.

II. *Development to age 17.*

1. Interests. When a boy Thomas was "playsome enough," but he had a "contemplative melancholiness"; however, he "would get him into a corner and learn his lesson by heart" in short order. During his college period (aged 14 to 20) "he did not much care for logic, yet he learned it and thought himself a good disputant." He delighted in frequenting book-binders' (or stationers') shops to pore over maps; he tracked the sun and traced the voyages of Drake and Cavendish and the circumnavigators. Regarding other than

intellectual interests, it is reported that he rose very early in the morning to bait and snare jackdaws.

2. Education. From the age of 4 until he was 8 Hobbes attended school in Westport Church; next he went to school in Malmesbury to the minister, and then to a private school kept by a good Greek scholar. At 14¾ he was entered at Magdalen Hall, Oxford.

3. School standing and progress. At 6 Hobbes was learning Latin and Greek; by the age of 8 "he could read well and number four figures"; when he was between 8 and 14, his teacher, Mr. Latimer, a young man of 19 or 20, delighted in his company and used to instruct him "and two or three ingenious youths more, in the evening till nine o'clock." On entering Oxford, Thomas followed the lectures in logic but threw aside the orthodox doctrine to prove things in a way of his own. He found the physics of his day unreasonable and incomprehensible.

4. Friends and associates. (No information was found except with regard to his teacher, Mr. Latimer. See II 3.)

5. Reading. (See II 3.)

6. Production and achievement. Before the age of 14¾ Hobbes had translated the *Medea* of Euripides into Latin iambics. (See also II 3.)

7. Evidences of precocity. (See II 3 and 6.)

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Hobbes took his B. A. degree just before he was 20; he was then recommended by the principal of Magdalen Hall as a tutor to young Cavendish, whom he accompanied for several years, travelling with him through France, Germany, and Italy. After returning to England, probably before the age of 25, he again devoted his attention to a study of the classics.

AII IQ 135 (Rel. coeff. of data, .43)

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Stephen, Sir Leslie, *Hobbes,* London, Macmillan, 1904.
Clark, Andrew, "Thomas Hobbes" (in *Aubrey's Brief Lives Chiefly of Contemporaries* [1689–1696], Oxford, Clarendon Press, 1898. Pp. 332–395).

ALEXANDER VON HUMBOLDT (1769–1859)

A German Naturalist and Traveller

AI IQ 140 AII IQ 170

I. *Family standing.* Humboldt's ancestors belonged to the upper middle class, and several of them had held responsible civil or military positions. The father, an able soldier and statesman, adviser to the Prince of Prussia, had been mentioned as a possible minister of the future king; but his death occurred before the prince's accession to the throne. The mother belonged to an ancient and noble family of Huguenot stock; she was highly educated and remarkably gifted.

II. *Development to age 17.*

1. Interests. Humboldt early developed a taste for natural history; flowers and plants, butterflies and beetles, shells and stones were his favorite playthings. The collecting, arranging, and labeling of these treasures was carried on with so much zeal that he acquired the name, in jest, of "Little Apothecary." The years of solitude on the family estate at Tegel did not make the boy happy; but they did contribute to the development of a strong love for nature and the study of nature. Humboldt reports that until he reached the age of 16 he showed little inclination for scientific pursuits; he was restless, desired to travel, and wanted to become a soldier. His family desired that he study finance and prepare for government service. At 16 he was described by Henrietta Herz, "the most beautiful and gifted woman of Berlin," as vivacious and intelligent and of distinguished manners, possessed of extensive information, and in every way estimable. He had at this age begun to exhibit some gallantry and to develop talents in drawing and dancing.

2. Education. According to family tradition, Humboldt learned to read and write at 4 years of age from his tutor Koblanck, later first preacher of the Luisenkirche, Berlin. From the age of 4 to 6 Humboldt was instructed by this first tutor, and from 6 to 8 by Clüsener, afterward private secretary of the Princess Ferdinand. From his 9th to his 19th year, with his elder brother, he received instruction from a number of distinguished professors and lecturers. The tutor Kunth, later privy councillor and enlightened philanthropist, supervised the general course of study, which included Latin, mathematics, philosophy, political science, philanthropy, modern languages, art, drawing, and the study of maps and books of travel. Among the special instructors secured by their tutor were Professor Fischer, a distinguished teacher of mathematics and the author of standard textbooks; Löffler, later professor in the University of Frankfort-on-the-Oder, also an author; and the distinguished physician and writer, Heim, who instructed the boys in botany when Alexander was 11 years old. The boys attended lectures by distinguished professors and scholars in Berlin and were instructed in Hebrew by their brilliant Jewish friends.

3. School standing and progress. Humboldt did not attend any regular school until he entered the university at 18.

4. Friends and associates. In his childhood Alexander's inseparable companion was his elder brother Wilhelm. Both youths had the opportunity of meeting members of the court and persons of note who visited in their father's home. Alexander's tutors and his professors were men of wide intellectual interests and unusual distinction. When Alexander was 16 the brothers were admitted into the circle of intellectual Jews, among them the Herz, Veit, Beer, and Mendelssohn families, brilliant members of Berlin's intellectual society.

5. Reading. The study of maps and the perusal of books of travel exercised over young Alexander a secret fascination which

was at times almost irresistible. The narrative of Balboa's expedition, and pictures of palms and cedars in the illustrated Bible filled him with a desire to travel.

6. Production and achievement. (No specific record.)

7. Evidences of precocity. As a child Humboldt was not considered extraordinary in intelligence, for owing to the weakness of his physical constitution he could master his daily tasks only by dint of extraordinary effort. He and his brother Wilhelm (two years his senior) were instructed together and the younger, frailer boy did not appear the equal of his elder, more robust brother. Besides, Alexander's compelling interests were in a field little appreciated by the associates of his childhood.

AI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Humboldt's mother early decided that her son should enter the service of the State; for this reason political economy and mathematics became nominally the principal subjects of his course. The thirst for scientific knowledge took him, after short stays at the Universities of Frankfort and Berlin, to Göttingen, then at the height of its scientific glory. Young Humboldt judged a university entirely by the facilities it offered in the sciences.

At 18 Alexander commenced to study botany at Berlin and the next year translated a Latin botanical work into French, supplying valuable footnotes. When he left for Göttingen he carried with him a eulogistic letter of introduction from Professor Fischer, the eminent mathematician. In addition to his economics and botany, Humboldt studied archeology and philology, and published a pamphlet on the looms of the Romans. At 20 he toured the Rhine country with a Dutch botanist and a year later published *Observations on Some Basalts of the Rhine.* (He was self-taught in geology and mineralogy.)

About this time Humboldt met Forster, a man many years his senior, the son-in-law of the Göttingen professor of classics and archeology, a man of culture, well-traveled, and possessed of immense intellectual versatility. With this man, who was at once a friend and a leader, Humboldt carried out a tour of the Rhineland and of England.

At 22½, after eight months of preparation at Freiberg, Humboldt was appointed Assessor of Mines for Westphalia. He showed wonderful power in his rapid comprehension of his profession. During his service he published numerous papers on botany, physics, and chemistry. He held in fairly rapid succession appointments of increasing importance in Franconia and at Berlin. He was remarkably effective as a mine official; in one instance he increased the output of the mines fourteen-fold in a few months. Moreover, he did not neglect the welfare of the miners. Of every aspect of his profession, historical, scientific, economic, or social, he showed an amazing command. At 23 he was awarded an honorary Doctor's degree by the University of Breslau for his distinguished services to science.

In the course of his professional tours of inspection at home and abroad, Humboldt made observations of scientific interest; he experimented in chemistry and physiology and worked arduously at the *Flora Fribergensis*. For this latter work, published when its author was 24, Humboldt received a gold medal from the Elector of Saxony. At 25 the young scientist was admitted to the intimacy of the famous Weimar coterie and invited to contribute to Schiller's *Horen*.

During his four-year period of service in the department of mines (from the age of 22 to 26) Humboldt fulfilled his duties with conspicuous ability. He was entrusted with important diplomatic missions which he fulfilled brilliantly, and at 26 he had risen to the highest post in his department.

AII IQ 170 (Rel. coeff. of data, .75)

REFERENCE

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JOHANN KEPLER (1571–1630)

A Celebrated German Astronomer, One of the Chief Founders of Modern Astronomy

AI IQ 140 AII IQ 160

I. *Family standing.* The Kepler family, although originally noble and respected, had greatly deteriorated before the astronomer's birth. Johann's grandfather, an ardent Protestant, was a burgomaster and director of guarantees, and his grandmother came from a family of wealth and influence; but his father, a man of unstable and uncontrolled character, intermittently engaged as soldier, innkeeper, and at one time justice of the peace, led a roving and unsettled life. The mother, daughter of a burgomaster, was a proud, cold, unsympathetic, undomestic woman who lived on the most precarious terms with the members of her family and her acquaintances. She is said to have petted her two worthless sons and to have discriminated against Johann. She had learned the art of healing by herbs and potions, and because of her practices she was later accused of witchcraft.

II. *Development to age 17.*

1. Interests. Young Kepler loved gaming, but, because he was afraid of losing, he gambled only with himself. He was mystically religious and superstitious, and when he felt convicted of sin he punished himself for his misdeeds. In his disputations with his school fellows he showed a bent toward imaginative and paradoxical topics; at 14 he was already deeply interested in theological questions.

2. Education. Kepler's education was much interfered with, especially in the earlier years, by his duties as a pot-boy in his father's tavern, by his strenuous labors on the farm, and by his delicate health. Before he was 4 he almost died of smallpox. Recur-

ring headaches and frequent weakening fevers lowered his vitality; but although from the age of 7 to 11 his school work was frequently interrupted, he was able to pass the Stuttgart regional examination in his 12th year. Then for over a year he remained at home engaged in menial service. At 12 he entered the Protestant monastic school at Adelberg, and remained there under the instruction of excellent teachers until he was 15. The course of study included Latin, Greek, rhetoric, dialectic, music (which he had begun to study at 8), and the New Testament in a Latin version. Leaving Adelberg, Kepler was promoted to Maulbronn, a school preparatory to the University of Tübingen, and at that time directed by Schopp, a distinguished historical student and a man of determined character and high moral ideals. Here Kepler continued his earlier studies, reading Cicero, Virgil, and Demosthenes, and adding the study of geometry and arithmetic. When nearly 17 the youth was examined at Tübingen, received the Bachelor's degree, and returned to Maulbronn for his last year.

3. School standing and progress. In the elementary schools the teachers praised Kepler for his fortunate gifts, although he was very ill-mannered. At Adelberg he attained to remarkable proficiency in the use of Latin; he wrote poems in the form of riddles and acrostics, and later composed Pindaric odes on such subjects as the origin of rivers and Atlas' view of the clouds. In disputations he discussed such subjects as "The Literary Studies of Germany as an Evidence of Her Decadence."

Kepler passed the final examination with distinction, although at the time he was terribly visited with eruptions on his hands and legs. At Maulbronn the theology teacher hated him "because the boy wanted to convert him, the teacher, openly"; and the other pupils envied and disliked the gifted youth for his natural ability and brilliant achievements.

4. Friends and associates. At Adelberg, Johann incurred the enmity of a number of his comrades by reporting their misdemeanors, although this was in accordance with school regulations. As a result the boys made life miserable for him. At Maulbronn, also, his fellow students envied and hated him because he surpassed them; and, since the younger boys were not allowed to associate with the older ones, Kepler was prevented from seeking his mental equals in classes above his own.

5. Reading. Before he was 14 Kepler had applied to Tübingen for a copy of Luther's *Disputation of Predestination,* apparently for his own study.

6. Production and achievement. (See II 3.)

7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Kepler entered the University of Tübingen at 18, where he was freed from material cares by the award of a special stipend. A number of his instructors were men of real distinction, among them Moestlin, professor of mathematics,

with whom he formed a lasting and inspiring friendship, and who taught him the Copernican system. So far Kepler had shown no special liking for astronomy, but chose rather the theological course and attended lectures in the arts and sciences preparatory to the Master's degree. His grades in these subjects, in the three years' reports extant, are all *A*'s and *a*'s, and this excellent record created jealousy between him and his fellow students. At 19 Kepler took the Master's examination and won second place, whereupon he turned to the study of theology. Kepler's interpretation of Protestantism was far too liberal and rational to satisfy the theological faculty; however, Professor Hafenreffer, himself a clever man, recognized the young man's ability, especially in mathematics.

At 22 Kepler reluctantly accepted the astronomical lectureship at Gratz and set to work earnestly to master his subject. One of his duties was to prepare an annual almanac, which should contain predictions of the weather and of remarkable events. As a consequence he acquired a considerable popular reputation as a weather prophet and astrologer. At 24 he published a book which showed much astronomical knowledge and very great ingenuity. The next year he married, but without improving his financial circumstances. Soon after, because of the religious wars, he withdrew into Hungary and there wrote several astronomical tracts addressed to his friends.

AII IQ 160 (Rel. coeff. of data, .75)

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Lodge, Sir Oliver Joseph, *Pioneers of Science*, London, Macmillan, 1893.
Berry, Arthur, *A Short History of Astronomy*, New York, Scribners, 1899.
Wolf, Rudolf, *Geschichte der Astronomie*, München, Oldenbourg, 1877.

JOHN LAW OF LAURISTON (1671–1729)

A Celebrated Scotch Financier and Projector of Commercial Schemes

AI IQ 140 AII IQ 140

I. *Family standing.* On his father's side Law was descended from a family which held a position of considerable social rank and influence in Edinburgh: his great-great-grandfather was archbishop of Glasgow; his father, William Law, a goldsmith carrying on business in the capital (a profession more nearly allied to that of banking as now understood), was so successful that he was able to purchase a great estate. The mother, Jane Campbell (probably related to the ducal house of Argyll), appears to have been a very superior woman, and especially keen in financial management.

II. *Development to age 17.*

1. Interests. "At an age (13+) when the majority of children have merely mastered the preliminary stages of a branch of knowledge presenting so many difficulties, Law was able to find the most genial occupation in solving the most complicated problems in geometry and in comprehending the subtleties of algebraic for-

mulae." "At a time also when political economy as a science was undeveloped . . . . Law devoted a considerable portion of his time to inquiring into the basis of national and private credit . . . . and generally (into) all the intricacies of economic phenomena that presented themselves to his observation." At a period between the ages of 13 and 21 "he addicted himself to the practice of all games of chance, skill, and dexterity, and was noted as a capital player at tennis."

2. Education. "In order to put him beyond the possible prejudicial influences of the city," his father sent him "at an early age to Eagleshow, where he was placed under the care of the Rev. James Hamilton. . . . . There he received his early education in a school established by . . . . the first Presbyterian minister ordained after the liberty." After the death of his father (when John was 13) his mother successfully managed the education of her children.

3. School standing and progress. (No record.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (See II 2.)

7. Evidences of precocity. (See II 2.)

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* With an independent competence, Law, at the age of 21, felt free to show himself in society. He went to London, visited pleasure resorts, lived a dissipated life, and contracted heavy debts which his mother was obliged to pay off. At the age of 23 he quarreled with a rival over a lady and killed his opponent in a duel; he was condemned to death, pardoned, and again condemned, and finally escaped to the Continent shortly before the date for his execution. At the French Court he (aged 24) met the unhappy wife of the Earl of Banbury who "liked him so well as to pack up her alls and run away with him to Italy." They were faithful to one another and happy together. Law did not secure employment at the French Court as he had hoped; instead, he resumed his old career of gambling, and at the same time studied banking, credit, and financial problems of all kinds.

AII IQ 140 (Rel. coeff. of data, .43)

REFERENCES

Wiston-Glynn, A. W., *John Law of Lauriston, Financier and Statesman*, Edinburgh, Saunders, 1907.

Cochut, André, *The Financier, Law: His Scheme and Times*, London, Blackwood, 1856.

MICHEL EYQUEM DE MONTAIGNE (1533–1592)

A Celebrated French Essayist

AI IQ 140 AII IQ 140

I. *Family standing.* Montaigne's grandfather, a well-to-do fish and wine merchant, gave his sons the education of young gentlemen.

Pierre, the father of Michel, mastered Spanish and German and at 17 won a name for some Latin verses he had published. After his marriage he became a wine seller, but his interest in letters remained, and his château was always open to men of learning. It was characteristic of his democratic spirit that he chose poor peasants for his son's god-parents. The mother was a Protestant of Jewish blood; her forefathers came from Spain.

II. *Development to age 17.*

1. Interests. Montaigne says of himself that he was lazy and languorous, although in good health. "The danger was not that I should do wrong but that I should do nothing," he wrote. He robbed himself of all other pleasure in order to read; and he developed a natural capacity for acting and played with much effect the principal characters in college theatricals (Latin plays).

2. Education. The elder Montaigne made his son the subject of an original educational experiment, carried out in "gentle and delicate fashion, free from all rigorous discipline." As a part of his unique method he had the boy wakened every morning by the sound of music. Before he could speak Michel was placed under a gentleman well-versed in Latin, and this was the only language used by his parents and the domestics in his presence until he was six. He was taught Greek, although not very successfully, by means of a game. From the age of 6 to 13 he attended the College of Guienne, at that time the most flourishing in all France, and here he came under the tuition of some of the best scholars of the day. His tutor's "judicious blindness" permitted him to feast surreptitiously on the books he loved (see II 3) while he was gaining only a smattering of other subjects. At 13 he began the study of law.

3. School standing and progress. When, at 6, he entered school, Michel's teachers found him so quick and ready with his childish Latin that they were afraid to accost him. They connived at encouraging his debauch of reading, and kept only a lax hold upon him in the regular studies.

4. Friends and associates. (No record.)

5. Reading. Montaigne's first taste for books came to him, at the age of 7 or 8, from the pleasure of the fables of Ovid's *Metamorphoses.* Then he passed to the *Æneid* of Virgil, then to Terence, Plautus, and the Italian comedies, "lured on always by the sweetness of the subjects."

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 21 Montaigne became a judge at Bordeaux, but he spent much time in Paris in unrestrained self-indulgence. At 24 he made the acquaintance of La Boetie, which developed into a most famous friendship. Montaigne was present at the siege of Thionville and may have served under Marshal Strozzi.

AII IQ 140 (Rel. coeff. of data, .43)

REFERENCES

Lowndes, Mary E., *Michel de Montaigne*, Cambridge, University Press, 1898.
Collins, W. L., *Montaigne*, Edinburgh, 1898.
Sichel, Edith Helen, *Michel de Montaigne*, London, Constable, 1911.

TOM MOORE (1779–1852)

An Irish Poet

AI IQ 140 AII IQ 140

I. *Family standing.* John Moore, Tom's father, was "a grocer who gradually developed into a wine merchant and declined into a barrack master." Of his paternal grandparents the poet knew nothing. His maternal grandfather, a provision merchant and also a weaver, was always much respected by his fellow townsmen. Tom's mother seems to have been well educated and somewhat above her husband in station; she was a very intelligent woman, and a devoted parent, so anxious that her son should attain a high rank in school that she examined him daily in all his studies. Both parents were Catholics. They were fond of social pleasures.

II. *Development to age 17.*

1. Interests. Music was the only art, Moore said, for which he was born with a real love, and its influence is discernible throughout the poet's early years. When about 15 he began to learn to play the piano by himself. He liked to make up tunes; he had a taste for singing, too, and this talent was frequently called into play to enliven tea parties and suppers. His poetry seems to have sprung from the deep feelings occasioned by music.

In vacations, Tom was fond of arranging theatricals, the rôle of Harlequin being a favorite with him. He was also very active and took pride in performing successfully such feats as the headforemost leap. By the age of 14 he had become a determined rhymer and enjoyed writing effusions to a Miss Byrne, "an old maid," who answered him in verse. He was always interested in politics. It is recorded that he found confession irksome, and that when he entered college he gained his mother's consent to cease from the distasteful religious exercise.

2. Education. At a very early age he was sent to a nearby school, where, "as the youngest boy in the school," he was a favorite with the master, "an odd, wild fellow." He next attended the grammar school of Samuel Whyte, who had the best academy in Dublin and stood at the head of his profession. Outside of school he had lessons in Italian and French. "At a very early age" (15 according to Mr. Whyte) Moore entered Trinity College, Dublin, in order to prepare, according to his mother's plan, for the profession of the law.

3. School standing and progress. By all accounts Tom was a very quick child: his schoolmaster, Mr. Whyte, used to single him

out on days of public examination as one of his most successful and popular "exhibitors"; in Latin he soon outstripped the other pupils and was thus free to advance under the Latin usher as fast as his natural talent and application would carry him; in reading and recitation he maintained his supremacy in the school to the last. He passed his college entrance examinations "with distinguished honor to himself as well as to his able and worthy preceptor." In the examinations of the first year at college he gained a premium and a certificate. In the second year, failing to surpass his competitors in the regular course, he confined himself to such parts of the course as fell within his own tastes and pursuits.

4. Friends and associates. At Mr. Whyte's school he formed a long-continued intimacy with young Burston, only son of a very distinguished barrister who was very particular about his child's associates. Moore's teachers always took a strong fancy to him. They were invited to the house by his mother, and were showered with attentions, so that their influence extended much beyond the classroom. The Latin teacher, "Old Donovan," finding Thomas eager for politics, infused an ardent passion for Ireland's liberties.

5. Reading. During the holidays preceding his entrance into college, while on a visit with his young friend Burston, Moore read Mrs. Radcliffe's romances while listening to Haydn's music played by his friend's sister. Cicero, Virgil, and Demosthenes were among the classical works read at school or college.

6. Production and achievement. Because of his natural quickness and talent for recitation, Moore was early made a sort of show child, and before the age of 4 he could recite some verses on the politics of the day. His first "attempts at regular versicles" were made when he was 10 or 11 on the subject of a popular toy called "quiz." The editor of a monthly publication, who occasionally embellished his magazine with portraits of public characters, expressed a strong wish to have a drawing of young Thomas (then 13) engraved for the purpose, because he had acquired some little celebrity by his recitations in school and elsewhere. When the boy was 14, verses from his pen first appeared in print, and he found himself "one of the esteemed contributors" to the *Anthologica Hibernica.* "Thinking it the grandest thing in the world to be at the head of some literary institution," he organized two school friends into a debating and literary society, with himself as president. Each member was required to produce an original enigma, or rebus, in verse, for the others to explain. In one of the public examinations at college Thomas substituted for the required theme in Latin prose some of his own English verses, which were so well thought of that their author received an award from the Board—a copy of the *Travels of Anacharsis* in a very handsome binding. During his second year at college Moore wrote a short masque with songs, which was performed.

7. Evidences of precocity. (See II 6.)

AI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* In college Moore competed for a Latin premium; and although he surpassed his nearest competitor by a narrow margin, he refused to complete the examination by writing a theme in Latin hexameter. He had never written a single hexameter and did not wish now to begin bungling them, although it meant the loss of the prize; "it was enough for me to have done well what I had attempted, and I determined not to attempt anything more." Moore distinguished himself by standing high on the list of those judged worthy of scholarships—a barren honor, as Catholics were excluded from receiving awards of this kind. In the same year he won a medal of the Historical Society of the university by a burlesque sort of poem, called an *Ode upon Nothing.* At 21 his translation of the odes of Anacreon was published, dedicated to the Prince of Wales, to whom he was presented as a consequence and by whom he was complimented on his abilities. After graduating from the university, Moore entered at Middle Temple in London; but his legal studies soon lapsed. The interest of his friend Lord Moira secured for him a place as registrar of a naval prize-court at Bermuda; but the fees were small, and Moore, leaving a deputy, soon departed. He then visited America, where as a well known writer he was met with a flattering reception.

AII IQ 140 (Rel. coeff. of data, .75)

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WILLIAM PITT, FIRST EARL OF CHATHAM (1708–1778)

A Famous English Whig, Statesman, and Orator

AI IQ 140 AII IQ 140

I. *Family standing.* The Pitts, for a century or more, had been mayors, parsons, doctors, or government officials who gradually added to their estates. William's grandfather, a successful trader, married Jane Innes, a great-granddaughter of James V of Scotland. He "was a mighty imperious man, unsparingly laborious in pursuit of his aims, full of explosive energy, a shrewd judge of men." His dictatorial character oppressed his son Robert (William's father), who had no success either in business or as a politician. William's mother, Harriet Villiers, was "beautiful, intelligent, distinguished, and virtuous." She was the daughter of Brigadier Villiers and his wife, Viscountess Granderson, a spirited woman, notable in London, and created viscountess in her own right.

II. *Development to age 17.*

1. Interests. Gout prevented young Pitt from participating in athletic exercises. (No record of his interests is preserved other than that in II 3.)

2. Education. When 10 or 11 William entered Eton, which was at that time attended exclusively by sons of peers and men of family. The education was severely classical in school hours, while spelling, mathematics, and geography were taught by inferior masters in half-holidays. In addition to the prescribed ground work, the boys had individual training under tutors. Pitt remained at Eton until he was 17.

3. School standing and progress. At Eton he started in the lowest form but one, and in the normal way went forward almost every half year to the sixth form. His tutor wrote to the father that "he never was concerned with a young gentleman of so good abilities, and at the same time of so good a disposition," and added, "there is no question but he will answer all your hopes." His knowledge of ancient language and of ancient history remained a permanent possession. The boys looked up to him and to Lyttleton, his schoolfellow, as prodigies of genius, and the head master, too, is said to have recognized Pitt's superior capabilities.

4. Friends and associates. At Eton, William's special friends were Henry Fielding (one and one-half years his senior), George Lyttleton, Hanbury, and Pratt, who later held the office of attorney general in Pitt's first ministry.

5. Reading. (No record.)

6. Production and achievement. A letter written just before his 15th birthday gives evidence of solid character and academic ambition.

7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* For a year Pitt attended Trinity College, Oxford. Here he studied a good deal with tutors and bought many books. A Latin poem on the death of George I shows that he possessed a knowledge of classical language and rhythm, but "no trace of genius." From Oxford, Pitt went to Utrecht, where he probably acquired his knowledge of international law and diplomacy.

At 22 the youth, who had always been accustomed to lavish expenditure, found himself in straitened circumstances. He accepted a commission as cornet in Cobhem's Horse, taking his duties very seriously and reading every military book on which he could lay his hands.

At 24 he wrote his "Letter on Superstition" (published in the *London Journal*), with the object of reducing to absurdity the whole fabric of religious doctrine and worship. The hypotheses he employed for this purpose were cleverly formulated. Before he was 26 he spent a year touring France and Switzerland, from time to time writing letters to his sister in French.

AII IQ 140 (Rel. coeff. of data, .60)

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JOSEPH PRIESTLEY (1733–1804)

An English Clergyman and Natural Philosopher, Especially Celebrated as the Discoverer of Oxygen

AI IQ 140 AII IQ 150

I. *Family standing.* "The Priestleys were simple, sober, honest, God-fearing folk, staunch Calvinists and deeply religious." Joseph's immediate ancestors were farmers and clothiers, people of substance in the yeoman class. His father, Jonas Priestley, a weaver and cloth dresser, had "a strong sense of religion" and uniformly good spirits. His mother, the only child of Joseph Swift, a farmer, was "a woman of exemplary piety." She died when her son Joseph was 6 years old. When he was 9 young Priestley was adopted by his aunt, who was, according to her nephew, "as perfect a human character as I have yet been acquainted with."

II. *Development to age 17.*

1. Interests. Joseph's fondness for books had led his aunt to hope he might become a minister, and he readily entered into her views.

2. Education. At 6 the boy was sent to school in the neighborhood; and later he attended several other schools selected by his aunt. At a large free school conducted by a clergyman he began at 12 or 13 to make progress in Latin and the elements of Greek. On holidays he learned Hebrew with a dissenting minister; later he attended a school opened by this tutor.

3. School standing and progress. Priestley at the age of 16 had acquired a pretty good knowledge of the learned languages. At this age, "beginning to be of a weakly consumptive habit," he left school, and as Mr. Kirkby, the minister, had given up his teaching, the youth continued his studies alone until at 19 he entered the Academy at Daventry. With a view to trade he had (aged 16 to 19) learned French, German, and Italian without a master, and he wrote letters in French and German for an uncle who was a merchant.

4. Friends and associates. (No record.)

5. Reading. "From 11 to about 13, he had read most of Mr. Bunyan's works and other authors on religion, besides the common Latin authors."

6. Production and achievement. (No record.)

7. Evidences of precocity. Priestley's brother, Timothy, speaking of the period before Joseph was 6, seemed to have been particularly impressed by the lad's ability to repeat the Assembly's Catechism *without missing a word* and by his habit of kneeling down to pray; "this was not at bed time, which he never neglected, but in the course of the day."

AI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* A year or two before entering the Academy at Daventry, Priestley took lessons in mathematics. While

instructing a Baptist minister in Hebrew, he was at the same time learning from him Chaldee and Syriac, and had begun to read Arabic. He read widely and attained such a proficiency in many subjects that when admitted to the academy he was excused from all the studies of the first year and a great part of those of the second. At this time he was in the habit of writing down upon his return from church as much of the sermon as he could remember. His naturally vigorous mind was much stimulated by his three years' stay at the academy, where such subjects as liberty, theological orthodoxy, and heresy were continually discussed between teachers and students. With one of his classmates he used to rise early and "to read every day ten folio pages of some Greek author," beside a Greek play each week.

From 22 to 25 he was minister at Needham Market in Suffolk, where his lack of orthodoxy made him unpopular. He sought to improve his straitened circumstances by teaching and lecturing, but was at first unsuccessful, again because of the "taint of heresy." At 25 he entered on his work as head of his school at Nantwich, and, being an excellent teacher, was now very successful. In his leisure time he recomposed a treatise on the Apostle Paul and compiled an *English Grammar* for use in his school.

AII IQ 150 (Rel. coeff. of data, .75)

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PETER PAUL RUBENS (1577–1640)

A Celebrated Flemish Painter

AI IQ 140 AII IQ 140

I. *Family standing.* Rubens' grandfather was an apothecary. "His father, a graduate of a number of universities, acted as Alderman of Antwerp until he was involved in political storms." Rubens' mother, the daughter of a village tapestry maker, possessed a character of "devotion, courageous energy, simplicity, perfect tact, and stoicism under suffering," and it is said that her son derived these characteristics from her.

II. *Development to age 17.*

1. Interests. (None are recorded specifically other than the academic and artistic and a strong predilection for all things pertaining to religion and worship.)

2. Education. Rubens received his earliest instruction from his energetic mother, who superintended her children's lessons while she cared for several boarders. The family were living in Cologne

at this time, whither they had fled from political persecution. The youth received his first regular schooling in Antwerp, after his father's death made possible the family's return to their own country, but at 13 he was forced to leave school on account of his poverty. Because he expressed an "enthusiasm for painting," his mother sent him to the studio of a relative, a landscape painter of mediocre rank, where, however, he remained only a short time. He entered then the studio of Adam van Noort, with whom he worked for four years. Little is known of his progress at this time.

3. School standing and progress. "Gifted with exceptional intelligence," Rubens "early united a love of work with an eager desire for knowledge. He outstripped, and by a long distance, all his school fellows." He knew whole portions of the best prose and poetry by heart and he had learned to speak and read both classical and modern languages.

4. Friends and associates. Moretus, three years his senior, with whom Rubens attended school from the age of 10 to 13, became his life-long friend. The young artist is described as having an "amiable and perfect character."

5. Reading. Rubens "never ceased to read in the original the best poets and prose-writers," especially the classical. He "also gained instruction from devotional books."

6. Production and achievement. From earliest childhood he "took pleasure in copying" pictures from Stimmer's Bible, and at 13 he entered upon his apprenticeship in art.

7. Evidences of precocity. (See II 2 and 3.)

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* From Van Noort's studio, Rubens went at 17 to serve his master's friend, the eminent painter Van Veen. The influence exercised by Van Veen "is more apparent in the conduct of (Rubens') life, than in his artistic development." Although Rubens worked with this master for four years, no trace remains of his production during this time.

At 21 Rubens, now a master of the Guild of St. Luke, settled in Antwerp and began to work out his own destiny. Two years later, he visited Italy in order to study the great paintings and while he was there the Duke of Mantua, "struck by the talent of the young artist, took him into his service for nearly 8 years." At 24 Rubens completed three notable pictures to adorn the chapel of St. Helena in Santa Croce: *St. Helena and the True Cross, The Crownings of the Thorns,* and *The Elevation of the Cross.* While not to be compared to his later work, these productions exhibit genuine originality and power.

AII IQ 140 (Rel. coeff. of data, .43)

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FRIEDRICH SCHILLER (1759–1805)

A Famous German Poet, Dramatist, and Historian

AI IQ 140 AII IQ 155

I. *Family standing.* The Schillers were peasants and tradesmen in the Neckar Valley. Friedrich's grandfather was a master baker and village mayor. The poet's father was an army surgeon with the rank of major. In later life he became the superintendent of the ducal gardens near Ludwigsburg where in addition to his official activities he prepared and published a work of some value on agriculture. The mother, a pious, devoted woman, belonged to a family of bakers and city officials.

II. *Development to age 17.*

1. Interests. The wishes of his parents, and his own desire to resemble a certain teacher, led young Schiller at a very early age to choose a career in the church. As a little boy he liked to go to school or church, and even at the age of 5 he dramatized the church functions, arraying himself in robes suitable to the occasion and preaching to the family audience. But best of all he liked to escape to the hills with his sister. Attendance at the theatre was expected of army officers and so Schiller's father was often present, frequently accompanied by his son who was thus rewarded for good behavior. Friedrich's first attendance was at the age of 7 and he was so thrilled that at home he made a little theatre with paper-doll actors. This form of amusement occupied much of the boy's time from the age of 7 to 13. At school Schiller was a leader in the games, for although timid and awkward among grown-ups, he was a bold and fearless participant in boys' activities.

2. Education. Schiller's mother told Bible stories to her children; his father, historical tales. The village school gave Friedrich formal training until he passed, at the age of 5, to the charge of the pastor with whom he began to study Latin and (at 6) Greek. From the age of 7 to 13 Schiller attended a city Latin school in preparation for a church seminary. At 10 and 11 he was taught Latin, Hebrew, and Greek by an excellent teacher. From his 14th to his 21st year the youth was forced to attend the ducal academy, although he could not there prepare for his chosen profession—the ministry. At the age of 14 he decided, as a second choice, to enter the law; but when a department of medicine was established in the academy, Schiller, in his 17th year, found in it an escape from the, by this time, heartily detested legal studies.

3. School standing and progress. In all his childhood, try as he would, Schiller could never do enough to satisfy his father; yet the desire to do so ultimately was always an incentive. Hating the dry catechism, the boy memorized it for the sake of his father and of his own ambition and recited it without an error; for his pains he received a prize. The boy's teachers were pleased with his industry and called him one of the best pupils. Schiller passed at 9½ his first public examination, and received an encouraging comment

from the teacher. At 10 he passed his second examination successfully. In this year and the next he wrote good Latin verse; and at 12½ he received a "double *A*" (the highest mark) in every examination. It was this success that brought young Friedrich to the Duke's attention as a possible candidate for his academy.

During his first years at the ducal academy, Schiller's rapid physical growth and frequent indisposition affected his school record. He was reported "poor" in conduct. In Latin and Greek he did fairly; for mathematics he had little talent. In his law studies he got the name of a dullard. In Greek, however, he took a prize at 14, and the Duke remarked that this boy "will be something." At the age of 15 Schiller was at the foot of his class, and there he remained for a year, until, entering upon the more congenial study of medicine, he again made a satisfactory record. His true interest, even at this time, was in literature.

4. Friends and associates. Two associates of Schiller's infancy and one from his 8th year remained his friends for life. One of these was afterward a member of the State Medical Council. Schiller had always a few friends to whom he was devoted and with such as these he shared in his teens, a productive enthusiasm for literature.

5. Reading. Schiller's mother read the works of the religious poets to her children. Reading became the boy's delight, and at 13 he would often lose himself in Klopstock, Virgil, or the Psalms, forgetting his prescribed tasks. At 14, or possibly earlier, he read secretly *Werther* and the dramas of Gerstenberg, Lessing, and Goethe. At 15 he devoted himself to poetry, attended lectures on Homer and read unstintingly, alone or with his intimates.

6. Production and achievement. At 10 Schiller wrote an original Latin prose greeting to his father, and at 11 produced with great facility distichs, letters, etc., of which two examples are preserved. Perhaps his first original production in German was the description of a psychic experience at his confirmation (aged 12½); in the same year he wrote two tragedies. When he was 13 he produced a poem and an epic in the Klopstock manner. At 14 he founded, with his friends, a "Dichterbund" for the cultivation of the Muse. Essays of this year (one in Latin distichs and one in prose) show technical skill and ability in characterization. At 15 Schiller wrote *The Student of Nassau.* At 16 he and his colleagues began to send their productions to the periodicals; Friedrich was already dreaming of becoming a poet.

7. Evidences of precocity. Tales are told of bright sayings of Schiller before he was 4 years old.

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Schiller continued to study medicine at the ducal academy, but his heart turned to literature. At the age of 19 he was already at work on *The Robbers.* He delivered school addresses on formal occasions, wrote a few poems, and occupied himself with translations and extensive reading. At 21 he was graduated as a physician, but with permission to practice in the

Army only. The same year he received an appointment to a regiment at Stuttgart, but he found the work there uncongenial and the living conditions humiliating. The next year *The Robbers* was printed at his own expense. It was played with immense success, and rapidly won fame for its author. At 22½ Schiller published a volume of poems and became editor of a magazine, while continuing his dramatic work. During a term of imprisonment, his punishment for visiting Mannheim without leave (to see a performance of *The Robbers*), Schiller was commanded by the Duke to cease his literary activities altogether. This was too severe a penalty. The young poet fled from so intolerable a situation and devoted himself entirely to literary work, producing a number of dramas, including *Louise Müllerin* and *Don Carlos*. At 24 he was appointed theatre director at Mannheim, and, although afflicted with debts, he wrote and produced several dramas. Elected to a learned society, he delivered an admirable first address on "What a good theatre can effect."

AII IQ 155 (Rel. coeff. of data, .75)

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WILLIAM HENRY SEWARD (1801–1872)

An American Statesman

AI IQ 140 AII IQ 140

I. *Family standing.* Seward's paternal grandfather appears to have been a distinctly public spirited citizen. His father was "successively physician, farmer, and merchant," and he discharged with integrity the duties of several offices of public trust, including that of a member of the New York legislature. The mother, whose father was also a citizen of good standing in the community, was "remembered as a person of excellent sense, gentleness, truthfulness, and candor."

II. *Development to age 17.*

1. Interests. "From a very early age Seward evinced a decided love of books and a taste for study, with but little aptitude for work upon the farm or in the country store"; in fact, he frequently ran away from home to go to school. As evidence of his intellectual absorption it is told that at 12, as he was reading while returning from the pasture with the cows, he fell into a creek and was only rescued from drowning by the timely aid of an elder brother. The presentation of *Cato* in a school exhibition made a lasting impression and led young Seward to become a hater of military and imperial usurpation.

At college Seward disliked mathematics but was devoted to the study of moral philosophy, rhetoric, and the ancient classics. He cherished an ambition to become the valedictorian of his class.

2. Education. The boy was sent at the age of 9 to the Farmer's Hall Academy in Goshen, N. Y., which he attended for one year. He began the study of Latin at that time. Starting at 10 years of age, he engaged in college preparatory work in a new academy at Florida, New York. Daily studies began at 5 A.M. and closed at 9 P.M., and recreation periods were all utilized in doing chores. At 15 the youth matriculated as a sophomore at Union College, Schenectady, which was then, owing to the good influence of its president, at the height of its prosperity. Discipline was based on sound principles, but instruction still consisted in the memorizing and reciting of set tasks.

3. School standing and progress. At Farmer's Hall, because he refused to help shut out the master when the latter required school attendance on Christmas Day, Seward earned the contempt of his schoolfellows. During the Florida years, William was reported by a master as too stupid to learn because he failed in Latin translations; but later, when his ambition had been aroused by his father's statement that he might one day become a great lawyer, he "readily acquired a double lesson within the time allowed for a single one." Although in one subject, composition, an exercise he had rarely practiced, he wrote confusedly because he had no general supply of facts or knowledge, he was, according to the examiner, "more than qualified" to enter the junior class. However, his youth made him ineligible, as 16 was the minimum for a junior and he was but 15.

4. Friends and associates. Seward states with reference to his college days: "The companionship of intelligent and emulous classmates harmonized with my disposition."

5. Reading. (No record.)

6. Production and achievement. In his childhood and probably before he was 9 William's oratorical gifts were exploited by his admiring father, who placed him on the counter of a country store to recite a political address before an audience of neighbors. It was perhaps about this time that William announced his intention of becoming a justice of the peace. A characteristic phrase remains from a school composition of Seward's early teens—"On Virtue. Virtue is the best of all vices."

At college Seward (aged 16) and his roommate rose at 3 o'clock in the morning, cooked their own meals, washed their own dishes, and spent their time in severe study to win Phi Beta Kappa honors, which they succeeded in attaining in the junior year.

7. Evidences of precocity. (See II 1, 3, and 6.)

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* "Diffidence or some other cause" kept William from participating in the debates he heard at school, but he profited by them nevertheless and at 17 delivered his first political speech. After a year of earning to pay off his debts, Seward

returned at the age of 18 for his senior year at college. He held the office of class manager during the year, and, graduating with the highest honors, he was chosen to deliver a commencement oration. From the age of 19 Seward studied and practiced law. Almost as soon as he was admitted to the bar (aged 21) he made a reasonable living. He married at 23. At 24 he had already aroused some local attention by his speeches on state and national issues.

AII IQ 140 (Rel. coeff. of data, .60)

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DAVID FRIEDRICH STRAUSS (1808–1874)

A Celebrated German Theologian and Philosopher

AI IQ 140 AII IQ 160

I. *Family standing.* The Franco-Swabian Strauss family in Ludwigsburg near Stuttgart were merchants. David Friedrich's father, whose habits and interests were scholarly rather than mercantile, was a senator as well as a merchant, and a man of distinct ability and education. The mother, whose father was a pastor and the son of a pastor, was practical, rational, and stable; under distinctly trying circumstances she never lost her courage, balance, and sound common sense.

II. *Development to age 17.*

1. Interests. The Strauss children flew their kites in the meadow, gathered flowers in the woods with their mother, helped her in the garden, assisted their father in the care of his bees or played in the garret. David's constitutional frailty inclined him to intellectual rather than physical recreations; and in his teens a talent for poetry appeared and was cultivated.

2. Education. Strauss attended the Latin school through his 14th year. Then, choosing theology as a career, he entered the lower evangelical seminary at Blaubeuren, where the principal studies were classical literature and ancient history. Here he came under the tuition of Professors Kern and Baur, eminent scholars.

3. School standing and achievement. At the age of 11 and while he was attending the Latin school his name appeared as fourth on a list of five superior scholars in the institution, and when he entered the evangelical seminary his standing was even higher, for he was introduced by his rector as "the best student in his class."

4. Friends and associates. Strauss's chief friend at Blaubeuren was the eminent philosopher, Vischer, who held this place throughout their lives and became his colleague's biographer. For a time Strauss held in peculiarly lover-like affection a youth of somewhat

feminine qualities, and was inspired by him to some of his earliest efforts at poetry.

5. Reading. (No record.)

6. Production and achievement. (No specific record; but see II 4.)

7. Evidences of precocity. At an early period David Friedrich's intellectual quickness and poetic imagination were apparent. At school, although too delicate for the usual games, his originality in play was noted.

AI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* From the age of 17 to 22 Strauss attended the Evangelical College at Tübingen, entering as fifth of his class. Repelled alike by the dry character of the instruction and the noisy vulgarity of student life, Strauss attached himself to a group of friends with poetic gifts and tastes. By his 19th year the shy boy had developed into a self-assured, hard, critical individual whom others feared. At this time the religious philosophy of his old teacher, Baur, now professor at Tübingen, brought Strauss under the influence of Schleiermacher. Through reading and discussion with his friends the youth was attracted to the philosophy of Hegel.

Toward the end of his 23rd year Strauss left Tübingen to become a pastor in a village near his own home. He was popular in the village, but he remained there less than a year, returning then to a professorship at Maulbronn. While here, and before he was 24, Strauss received a Doctor's degree for a thesis which is described as philosophical rather than religious. The same year, attracted by the teachings of Hegel, he made his way to Berlin. Unfortunately, the philosopher's death intervened, but Strauss attached himself to the Hegelian school and also attended Schleiermacher's lectures on the "Life of Jesus." Before he was 25 the young student had returned to Tübingen as under-master, delivering a course on logic, metaphysics, and philosophy, of which it was said "Hegel could not, indeed, have desired a better interpreter than he here found." In 1835, at the age of 27, Strauss published his famous *Life of Jesus Critically Considered.*

AII IQ 160 (Rel. coeff. of data, .75)

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ANNE ROBERT JACQUES TURGOT (1727–1781)

A Noted French Statesman, Political Economist, and Financier

AI IQ 140 AII IQ 160

I. *Family standing.* "Turgot's family was one of the most ancient of Normandy." His paternal grandfather had been "intendant of the

generality of Metz and of Tours." His father "was successively Master of the Requests, Provost of the *Belles-lettres,* Councillor of State, and President of the Grand Council"; and he was also the originator of one of the finest plans ever made for the defense of Paris. The only information as to the mother is that she did not understand her son, and continually rebuked him for his awkwardness.

II. *Development to age 17.*

1. Interests. Turgot early developed a pronounced fondness for books and serious studies. Because of his physical and social ineptitude he soon became abnormally sensitive, and avoided people as much as possible. He evidently had much sympathy for poor students with whom he came in contact in college, for he gave them much of his pocket money.

2. Education. Young Turgot had a tutor who, it appears, was not efficient, for although the pupil's wide reading filled his mind with ideas, when the time came for sending him to college his knowledge was found to be "far from exact." However, he made a decided advance under the able instruction at the Collège Louis le Grand, where "all his hours were filled. Literature and poetry were very appealing to him." Grammar and languages he learned readily and as, in accordance with his father's request, he devoted much time to them, he learned many, including Greek, German, Italian, English, Spanish, and Hebrew. At the Collège du Plessis he had distinguished masters; among them the Abbé Sigorgne, the first professor in France to substitute the theories of Newton for those of Descartes. At the age of 16, Turgot, intended by his father for the church, went to the Seminary of Saint-Sulpice, where the lectures of the faculty of theology engaged his attention.

3. School standing and progress. (No further record.)

4. Friends and associates. (No record of other than relatives and tutors.)

5. Reading. At 16 Turgot spent most of his time "reading books on finance, commerce, philosophy, and theology."

6. Production and achievement. He had acquired a knowledge of languages before his 16th year.

7. Evidences of precocity. (See II 1, 2, and 6.)

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 19 Turgot was admitted, because of his youth by special dispensation, to the examination for the degree of Bachelor of Theology. He defended his thesis so brilliantly that both the Pope's Nuncio and the Archbishop of Tours showered him with compliments. The latter informed the king that he had never heard a thesis sustained with equal distinction.

At 22 the gifted student was admitted to the Sorbonne to study for his ecclesiastical license. His first writing of which there is any trace is a public letter to Buffon, in which he gives "the principal objections which later overthrew the (astronomical) system of this

celebrated naturalist." At 22 Turgot wrote his first paper on economics, in which he aimed to refute Law's system. Six months after his admission to the Sorbonne he was elected "prior," or chairman of the assemblies. At 23 he set himself to refute the metaphysical doctrines of Berkeley and Maupertin.

During his stay at the Sorbonne, Turgot made many translations, into French, of masterpieces in other languages, including renderings of the works of Homer, Seneca, Caesar, Ovid, Tacitus, Horace, Tibullus, Virgil, Tasso, Klopstock, Gessner, Hume, Addison, Johnson, Pope, and Dr. Josiah Tucker. The languages from which he translated included Latin, Greek, Hebrew, German, Italian, and English. His verse at this period was produced with remarkable facility and was characterized by considerable epigrammatic point. Claiming the whole world of thought as his domain, he had achieved, before he was 23, wide knowledge of literature, political economy, chemistry, and the physical sciences.

In his 23rd year, and against the advice of his friends, Turgot left the church for the law, becoming deputy-councillor in the Parlement of Paris.

AII IQ 160 (Rel. coeff. of data, .75)

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LOPE FELIX DE VEGA CARPIO (1562–1635)

A Celebrated Spanish Dramatist and Poet

AI IQ 140 AII IQ 145

I. *Family standing.* Lope's father, a poet of singularly Christian spirit, was devoted to works of practical charity; he was probably either a basket maker or an embroiderer. There is no record concerning the mother.

II. *Development to age 17.*

1. Interests. In his childhood Lope probably assisted his father in caring for the poor and the sick in a Madrid hospital. At 5 the boy read Spanish and Latin and was devoted to verse making, for which he had already shown much talent. In his 11th year he possessed such accomplishments as "dancing, singing, fencing, etc." At 14, "being ambitious to see the world," he set out with a friend, but he was caught in an escapade and was returned home by the police.

2. Education. At 5 Lope had already begun to study Spanish and Latin. At 10 he knew grammar and some rhetoric, was familiar with

Latin and Italian, and was acquainted with French. He probably entered college at this time, and after two years (aged 12) had mastered grammar and rhetoric. Between the ages of 15 and 17 he entered the University of Alcala, from which he graduated after four years of study.

3. School standing and progress. Although there is no definite statement to that effect, we may infer that Lope's general educational progress was unusually rapid.

4. Friends and associates. Herman Nunos accompanied Lope on his "journey" at the age of 14.

5. Reading. (No definite record.)

6. Production and achievement. At 5 Lope dictated poems while he was yet unable to write; at about 10 he translated a Latin poem into Castilian verse, and composed rhymes in both Latin and Castilian; at 14 he wrote his first play, *The True Lover,* which was marked by his characteristic sweetness of versification; at 15 he wrote a number of eclogues in honor of the Bishop of Avila, whose service he had entered, and produced as well the comedy *La Pastoral de Jacinto,* his first three-act play. Before his 18th year he had written many more dramatic pieces.

7. Evidences of precocity. (See II 2 and 6.)

AI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At 20 or 21 Lope became the secretary of the Duke of Alba, repaying the favor of his appointment by writing a pastoral romance, *La Arcadia.* For two years, probably between the ages of 21 and 23, he served the Marques de las Navas. At 22, already ranked "as an eminent poet in Madrid," he contributed to the *Jardin Espiritual* of Fr. Pedro de Padilla, and to the *Cancionero* of Lopez Maldonado. It is probable that he wrote *La Dorotea* between the ages of 23 and 26. Cervantes, in a romance published in 1585, when Lope was 23, mentions his young contemporary as "among the most distinguished Spanish wits of the time." Already the youth was accorded both for his poetry and his charity the unusual and well-deserved fame which the man was to receive in full measure during his later life.

AII IQ 145 (Rel. coeff. of data, .43)

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JAMES WATT (1736–1819)

A Scottish Mechanician, Inventor, and Civil Engineer

AI IQ 140 AII IQ 145

I. *Family standing.* Watt's father, descendant from solid stock, made his way as a shipwright, ship-chandler, builder, and merchant. He

was a promotor of town improvements, an "intelligent, upright, and benevolent man." Among the mother's forebears were great soldiers and warriors.

II. *Development to age 17.*

1. Interests. In early boyhood James was fond of angling, and was also devoted to all kinds of experimentation. In later boyhood (probably between the ages of 14 and 17) he was "indefatigable in his habits of research and observation; every excursion he took extended his knowledge; not contented with adding to his botanical and mineral treasures, he entered the cottages of the poor to study their characters; and listen for hours to their local traditions, popular ballads, and wild superstitions." Astronomy was a fascinating study to him, and he took a deep interest in anatomy. Many years later he told his son that he would have been a surgeon had he been able to bear the sight of suffering.

2. Education. While he was still a little child, Watt was taught to read, by his mother; his father taught him writing and arithmetic. Ill health kept James from regular school attendance; but under the learned master of the grammar school of Greenock he attained a more than respectable proficiency in Latin and some knowledge of the elements of Greek.

3. School standing and progress. Watt's school comrades, certain "burly youngsters," considered him mentally dull in the earlier period of his school days; for his ill health and a partiality for quiet pursuits resulted in drawing upon him the disdainful regard of his associates. At 13 or 14, however, he made rapid progress in a mathematical class.

4. Friends and associates. A cousin, who became Mrs. Marion Campbell, was Watt's companion in early youth and his friend through life. On his frequent visits to Glasgow, when he was 14 and more, he formed friendships with several intelligent and well-educated young men. These "acknowledged and appreciated Mr. Watt's superior abilities," yet they sometimes "feared while they loved him, as he had no patience for folly and could be sarcastic."

5. Reading. Before the age of 15 James had read twice with great attention Gravesande's *Elements of Natural Philosophy*, the first book on that subject put into his hands. It was probably during his middle teens that "he read indiscriminately almost every book he could procure": poetry, romance, and the publications of the day. He also read and studied much in chemistry and anatomy.

6. Production and achievement. At 13 young Watt, while on a visit to Glasgow, invented story after story to keep his friends up till after midnight, because his severe toothache would not let him sleep at an earlier hour. In these tales, the "interest was so overpowering that all the family listened to him with breathless attention."

Between his 15th and his 18th year, "every new acquisition in science, languages, or general literature seemed made without an

effort. He went on with various chemical experiments, repeating them again and again until satisfied of their accuracy from his own observations. He had made for himself a small electrical machine, and sometimes startled his young friends by giving them sudden shocks from it." In his father's shop he learned to work with metal, wood, and other materials, and with a small forge, set up for his use, he repaired and manufactured all sorts of instruments, made a punch-ladle out of a silver coin, and gained familiarity with the use and construction of telescopes, quadrants, and other optical instruments. Among the small models of his invention were a crane and a barrel organ.

7. Evidences of precocity. Watt was 6 when he drew mathematical lines and circles on the marble hearth, and then marked in letters and figures "the result of some calculation he was carrying on." A caller, on putting various questions to the boy, "was astonished and gratified with the mixture of intelligence, quickness, and simplicity displayed by his answers," and pronounced him "no common child." At an early age "he was remarkable for manly spirit, a retentive memory, and strict adherence to truth." His parents were proud of his talents and encouraged him to study at home. Given a set of small tools by his father, he delighted in taking his toys to pieces, reconstructing them, and inventing new playthings. At 15 he sat silent for an hour in his aunt's house, taking the lid off the kettle and putting it on again; holding now a cup and now a silver spoon over the steam, watching how it rose from the spout, and catching and connecting the drops of hot water it fell into. His aunt asked if he were not ashamed to spend his time in that way. (See also II 1, 4, 5, and 6.)

AI IQ 140 (Rel. coeff. of data. 53)

III. *Development from 17 to 26.* Before he was 19 Watt had decided to become a mathematical instrument maker. After a year with relatives in Glasgow, where he gained favorable notice from several learned professors, he went to London and there was apprenticed to one of the few mathematical instrument makers of the city. Dispensing with the regulation years of service, because he made such extraordinary progress, he returned to Glasgow and secured employment at the university. At 21 he had become the university mathematical instrument maker. In the years immediately following he carried on some significant experiments, and at 25 or 26 constructed a kind of steam engine.

AII IQ 145 (Rel. coeff. of data, .60)

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ULRICH ZWINGLI (1484–1531)

A Famous Swiss Reformer, with Calvin, the Founder of the Reformed Church

AI IQ 140 AII IQ 140

I. *Family standing.* Zwingli's paternal ancestors were well-to-do peasants, prominent in their community. His grandfather and his father, who also raised flocks and herds, served each in turn as chief magistrate of the village. Nothing is known of Zwingli's mother, Margaret Meili, except that she was the sister of a Benedictine abbott.

II. *Development to age 17.*

1. Interests. Young Zwingli was a patriot; when a child, if anyone said a word against his fatherland, he bristled up instantly. Music was a passion with him, and at 16 he was already an accomplished player on various instruments.

2. Education. From his earliest years he was instructed by his parents in religious matters, and received also about as good a secular education as the times afforded. His father committed him at 3 to an uncle, a priest and friend of the New Learning, "to see if there were the making of a scholar in him." While living with this uncle he was sent first to the parish school and later, at 10, to the school of St. Theodore's Church, kept by a gentle and wise master, Gregory Buenzli. At 14 Ulrich entered at Bern the school of Woelflin, a remarkable man of learning and a famous poet. After two years he went to a Dominican monastery for further training in music, but he was soon removed by his father and sent to the university in Vienna, where he probably came under the prominent classical teacher, Conrad Celtes.

3. School standing and progress. Zwingli "learned so quickly that he found all the things he was taught too easy to give his clever intellect due exercise." At St. Theodore's he was a brilliant pupil, carrying off all the honors in the disputations, and outgrowing in four years his master Buenzli's instruction. From Woelflin he acquired elegance of diction, the knowledge and discernment of things, and the theory of poesy. At Vienna he took up "all that philosophy embraces and turned it to good account."

4. Friends and associates. Zwingli incurred the hatred of the older boys by carrying off all the honors in school, but he won the friendship of his teacher, Gregory Buenzli, who became a fatherly mentor.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record.)

AI IQ 140 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 18 Zwingli matriculated at the University of Basel and while studying the ordinary curriculum in the arts course, which included theology, he became a teacher of

the classics in the school attached to St. Martin's Church. At 20 he took his B.A. degree, and the following year the M.A.

His thoughts on theology were affected by Thomas Wyttenbach, who was lecturing at Basel, and whose somewhat heretical ideas Zwingli accepted and defended.

After ordination Zwingli was called to be rector at Glarus and was put in charge of a parish of three villages. He read his first mass at the age of 22. Devoting himself to theological studies, he abandoned the heathen classics, collected a large library, and soon had the sacred scriptures at his command. His sunny disposition and agreeable conversation enhanced his growing reputation as a preacher. He learned to play upon all kinds of musical instruments, that he might refresh his mind when wearied by severe study, and so return to his intellectual labors with renewed vigor.

AII IQ 140 (Rel. coeff. of data, .43)

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DOMINIQUE FRANÇOIS ARAGO (1786–1853)

A French Physicist and Astronomer, Noted Especially for His Experiments and Discoveries in Magnetism and Optics

AI IQ 145 AII IQ 165

I. *Family standing.* The father of Arago, a man of some little property in arable land, vineyards, and olive trees, was a licentiate in law who became treasurer of the mint. In regard to the mother no information has been found.

II. *Development to age 17.*

1. Interests. The physicist's native town of Estagel was a halting place for troops, and military men were constantly in and out of the Arago home. Thus, early association combined with the excitement of the Spanish invasion to inspire young Dominique François with such decided military tastes that his parents had to use great care to prevent him from running away with the soldiers; in fact, they caught him several times, as much as a league's distance from the village on his way with the troops. At 7 years of age the martial lad attacked single handed some Spanish soldiers whom he had heard maligning the "tree of liberty," succeeded in wounding the head of the party, and was only with difficulty rescued by his countrymen from the wrath of the enemy.

A chance meeting with a young officer of artillery when Arago was something over 14 years old directed the boy's interest to mathematics; and from that time on he followed no other course.

Studying by himself, he soon found obstacles that he was unable to surmount, until a friend at Estagel, who made the study of higher mathematics his recreation, learned of his predicament, and offered to assist him.

Arago found his greatest encouragement in the words of D'Alembert to a young man who had communicated to him his difficulties, "Go on, sir, go on, and conviction will come to you." Following this instruction, Arago found that, as he went on, what before had been dark, became clear and distinct.

2. Education. Arago was sent to the primary school in Estagel where he learned the rudiments of reading and writing. At the same time he received at home some private instruction in vocal music. He says of his progress: "I was not otherwise more or less advanced than other children of my age." From the age of 14 to 16 Arago attended the municipal college in Perpignan, whither the family had removed, and here he was at first occupied almost exclusively with literary studies. Then came his sudden interest in mathematics, to which he devoted himself almost exclusively for more than two years (from 14 to 17). As he had heard that an officer should not be ignorant of music, fencing, and dancing, Arago devoted the early hours of each day to perfecting himself in these accomplishments.

3. School standing and progress. The boy's estimable teacher of mathematics had had little training; his pupil soon progressed as far as he; and from that time the youth decided to study by himself. With this in view he sent to Paris for the newest works. In a year and a half, having mastered all the subjects required for admission to the polytechnic school, Arago presented himself for the local examination. But the examiner was prevented by illness from visiting the province, and Arago, who could not afford to make the trip to the city, lost his opportunity of taking the test during that year. He therefore devoted the following months to more advanced and intensive study.

4. Friends and associates. (None are referred to excepting the amateur mathematician who assisted him.)

5. Reading. When Arago was 14 the French classical authors had become the objects of his favorite reading; but a little later (aged 14 to 16) his entire interest was centered in the works of Legendre, Lacroix, and Garnier. These were followed (at age 16) by the works of Euler, Lagrange, and finally Laplace.

6. Production and achievement. (See II 3.)

7. Evidences of precocity. (See II 1, 2, 3, and 5.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Arago was examined by Legendre himself for entrance to the Polytechnic School at Toulouse and passed brilliantly. His stay at the school lasted two years, during which he distinguished himself in mathematical work. He met the geometer Poisson and passed with him, every evening, "entire hours in conversing on politics and mathematics." At the age of 19 Arago

became secretary of the Paris observatory, and carried out, with the eminent Biot, an intensive and minute research on the refraction of gases. For the next two years the young scientist participated in the work carried on at the observatory.

At 20 Arago left with Biot on a surveying expedition to "prolong the meridian line from France as far as the Island of Formentera." After about a year, when the older scientist had returned to Paris, Arago, working alone, was suspected as a French spy and imprisoned by the Spanish. He secured a release only after some months, and then proceeded to Paris. The next year, at the extremely early age of 23, he was elected to the Academy as a reward for his scientific labors. Soon after, and as a result of the kindly office of Monge, the noted geometrician, he was chosen to take the chair of analytical geometry at his old school at Toulouse.

AII IQ 165 (Rel. coeff. of data, .75)

REFERENCE

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FRANCIS BACON (1561–1626)

A Celebrated English Philosopher, Jurist, and Statesman

AI IQ 145 AII IQ 155

I. *Family standing.* The Bacon family belonged to the upper middle class. Francis Bacon's father studied at Cambridge and became "first lord keeper of the great seal" and "a statesman of no mean ability." Bacon's mother, a member of the lesser nobility, was a woman of strong personality and unusual ability, one of the most learned women in England.

II. *Development to age 17.*

1. Interests. Unauthenticated anecdotes are told of Bacon's early inquisitiveness and originality. More definite than these is the report that before he left Cambridge at 15 he broke away from the Aristotelian philosophy; and this event he is said to have regarded as the most important of his life. While in France in his middle teens he studied the art of cipher and invented an ingenious method of cryptic writing.

2. Education. During Bacon's early years his mother devoted herself assiduously to the cultivation of his mind. At the age of 12, being then a little under the customary age, the lad was dispatched to Trinity College, Cambridge; and at 15 he was admitted, with his brother two years his senior, to Gray's Inn. Shortly afterward Bacon was sent with the English ambassador to France, and there he remained three years, settling down for study at Poictiers, after a brief tour of the country.

3. School standing and progress. Bacon's observation was active and his memory retentive. He passed through the usual

course of study, but he came away with a supreme contempt for the prevailing methods of education.

4. Friends and associates. In France Bacon associated with the young secretaries of legation.

5. Reading. Francis Bacon owed a great debt to his mother for his love of books. (No exact record of his reading is preserved.)

6. Production and achievement. At 16 the youth began his *Notes on the State of Europe*, a work that was accurate without being profound.

7. Evidences of precocity. From his earliest infancy Bacon exhibited, along with bodily weakness, "the dawnings of extraordinary intellect." Introduced at an early age into the court of Queen Elizabeth, he showed in his discourse there remarkable gravity, and, on occasion, as remarkable wit.

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Bacon's unusual intellectual ability was generally recognized before his return from France at the age of 18. Three years of law study prepared him for admission to the Utter Bar, at 21; and these were followed by study at Gray's Inn, attendance at lectures at the Temple, and appearances before the Court. As he was a cultured and learned young man, Bacon's society was much sought after, but still he devoted considerable time to study. When he was 22 one of his first philosophical papers, *The Greatest Birth of Time*, appeared.

At the age of 23 Bacon entered Parliament, plunging at once into the heat of political controversy. At 25 (his period of probation having been shortened nearly two years) he became a full-fledged lawyer. He began at this time to prepare carefully written papers on public affairs, which were mostly circulated in manuscript. Of these the first of importance was a letter to the Queen on the policy to be adopted toward Roman Catholics. "It was calm, sagacious and . . . . slightly Machiavellian."

AII IQ 155 (Rel. coeff. of data, .53)

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JEAN SYLVAIN BAILLY (1736–1793)

A Noted French Astronomer and Politician

AI IQ 145 AII IQ 160

I. *Family standing.* Bailly's father held the position of "guard of the pictures of the King" at the Louvre, a position which seems to

have been hereditary in the family. Of the mother's family there is no record.

II. *Development to age 17.*

1. Interests. Bailly early manifested a lively interest in science and literature.

2. Education. Designed by his father for the hereditary office in the Louvre, young Bailly was early instructed at home under his father's direction. The program of his studies emphasized the artistic side at the expense of the strictly classical; and in consequence of this Bailly's Latin was always faulty. At the same time, and because the youth, while possessing a certain interest, lacked the necessary talent, the painting and drawing which were his father's chief concern never developed beyond mediocrity. Fortunately, a certain M. de Moncarville offered to instruct the lad in calculus in return for drawing lessons from the elder Bailly, and Jean Sylvain advanced so rapidly that he soon required the ablest masters.

3. School standing and progress. (See II 2.)

4. Friends and associates. (No specific record.)

5. Reading. Bailly developed a love for reading at about the same time that his interest was awakened in science; but there is no specific record of the books read.

6. Production and achievement. At about the age of 16 Bailly "tried his adolescent Muse" by composing two tragedies; but when he submitted these to the judgment of a noted actor of the time, though the verses were accorded some praise, the author was advised to desert literature for science, advice which, in the main, was thereafter followed.

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* No record is available of Bailly's career for many years after his transition from letters to science. In 1759 (aged 23) he calculated an orbit for Halley's Comet and later acquired considerable knowledge of astronomy, contributing to the Academy, at 27, a paper entitled "Observations Lunaires," which collected numerous observations calculated under the direction of his distinguished teacher Lacaille. On the death of this teacher, which occurred the same year, Bailly was elected to his place in the Academy.

AII IQ 160 (Rel. coeff. of data, .60)

REFERENCES

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GILBERT BURNET (1643–1715)

A British Prelate, Historian, and Theologian

AI IQ 145 AII IQ 145

I. *Family standing.* The Burnets were an old and honorable Scottish family. Gibert's father was a lawyer, learned in his profession, solid rather than brilliant, sufficiently successful to accumulate a large estate, and yet a generous man, a full half of whose practice went for charity or for friendship. The mother's brother, a staunch Covenanter, was at the age of 30 already one of the best known men in Scotland. The maternal relatives were characterized by their warlike High Church Presbyterianism.

II. *Development to age 17.*

1. Interests. Burnet's early years were passed in the time of civil war; he could always recall the entrance of Cromwell's troops into Aberdeen when he was 8 years old. While still very young, Burnet had "a greater knowledge of affairs than is usual at that age," largely because of the atmosphere of theological debate in which he lived. Permitted to choose his own profession, the boy decided on the law, to his father's regret, for the latter had hoped that his son would enter the ministry. After a year's legal study, and to the great joy of his parent, Gilbert altered his decision in favor of a career in the church.

2. Education. The elder Burnet devoted his energies, during a time of enforced retirement from professional life, to Gilbert's education, and subjected him to a Spartan system of training. Indeed, so harsh was this well-meant discipline that the boy came to fear, and even to hate his father. In consequence of his father's method of forcing, young Burnet entered the Marischall College of Aberdeen University at the age of 9 and, remaining five years, became M. A. just before he was 14. His father supervised his studies and made him rise to begin work at four o'clock in the morning. The year after Gilbert left the university, he devoted himself to the study of law, but at the close of this period he entered upon a three years' divinity course, pursuing his new interest with characteristic ardor.

3. School standing and progress. So successful were the results of his father's course of instruction that, before he was 10 years old, Burnet was master of the Latin tongue and of the classic authors. At the university, Burnet (aged 9 to 14) won no small applause, and he was not a little vain of his achievement.

4. Friends and associates. The boy's father appears to have been his closest companion during his youth.

5. Reading. During his theological course Burnet (aged 15 to 18) read over twenty volumes in folio of school divinity. "One result of this," he says, "was to heighten my vanity." He read also many volumes of history of all sorts, so that he furnished himself "with much matter" which he "laid out on all occasions."

6. Production and achievement. (No further record.)
7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 18 Burnet refused to accept a benefice because he considered himself too young for its responsibilities; and he again refused when a second benefice was offered him the following year. His unusual attainments and ability were already recognized by distinguished men, who sought and cultivated his acquaintance. At the age of 19 he approached the archbishop with practical suggestions for healing the breach between the Presbyterians and the Episcopalians. Before he was 25 he had carefully studied the history of the Church from its earliest beginnings, had examined its institutions and its state in England and on the Continent as well as in Scotland, had studied science and mathematics as well as theology, and had won the loyal support of a Scottish parish while acting for five years as its energetic preacher and minister. He was equally skilful and able whether as teacher or as clergyman, and at 24 or 25 he wrote an excellent treatise on education that attracted much attention.

AII IQ 145 (Rel. coeff. of data, .60)

REFERENCE

Clarke, E. S., and Foxcroft, H. C., *A Life of Gilbert Burnet, Bishop of Salisbury*, Cambridge, University Press, 1907.

TOMMASO CAMPANELLA (1568–1639)
An Italian Philosopher and Dominican Monk

AI IQ 145 AII IQ 155

I. *Family standing.* The only reference to Campanella's father states that he was the leader of a small patriotic uprising against the Spanish oppressor of Italy. No other information in regard to the family has been found.

II. *Development to age 17.*

1. Interests. Campanella was destined for the law; but he decided (partly, it is admitted, for love of learning, although his religious calling is clear) to enter a preaching order.
2. Education. After receiving instruction in the study of logic, Campanella, at the age of 14 or 15, entered a preaching order, going as a novice to the Cloister of St. George of Morgentia in Abruzzo to study philosophy, and then to Cosenza to study theology.
3. School standing and progress. (See II 2, 5, 6, and 7.)
4. Friends and associates. (No specific record.)
5. Reading. At 12 (or 14) Campanella had mastered nearly all the Latin authors presented to him.

6. Production and achievement. At 12 (or 14) "he could express himself skilfully in Latin prose or verse." At 14, or perhaps 15, he greeted the "Lord of the City" in Abruzzo with a Latin address in hexameters and a hymn in Sapphic strophes, delivered before the assembled populace. Poems and inscriptions from his pen were engraved on the same occasion in the church and upon the triumphal arch.

7. Evidences of precocity. Campanella is reported to have been a precocious child, and is included by Baillet among his *"Enfants Celèbres."* "Even when he was 5 years, he grasped whatever he heard from parents or teachers. His excellent memory that never forsook him was already apparent. He would go to school and listen to the instruction from outside the door, and when the teacher scolded the boys for their poor performance, he would peep in and ask, 'Shall I tell it to you?' Then he would recite the lesson without omitting a syllable."

AI IQ 145 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Campanella continued the study of philosophy and theology until he was 23. He read and compared the works of the leading philosophers and checked their results by the evidences of nature. Telesius seemed most nearly to express his own views, and Campanella addressed an elegy to the memory of this writer. At 22 he wrote in eleven months a treatise, *Philosophy Demonstrated by the Senses*—an annihilating criticism of the great work of Marta which had been the fruit of eleven years' labor by its author. Other treatises were written before he was 23. Campanella so distinguished himself by the skill and knowledge he displayed in public debate that he was denounced to the Inquisition. The following years (23 to 30) Campanella devoted to travel, to lectures on philosophy, to sketching the main outlines of his "Metaphysics," and to the preparation of a number of essays and poems.

AII IQ 155 (Rel. coeff. of data, .43)

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THOMAS CHALMERS (1780–1847)

A Celebrated Scottish Divine and Author

AI IQ 145 AII IQ 160

I. *Family standing.* The Chalmers family was connected with the middle class, the clergy, and the landed gentry. Thomas Chalmers' father was a dyer, ship-owner, and general merchant; a most respectable and substantial rural tradesman, member of the town council,

and an elder in the church. The mother shared with her husband a sincere religious character of Calvinistic nature.

II. *Development to age 17.*

1. Interests. Chalmers showed at his first school that he was a leader in sport and a strong, active, boisterous lad. From an early age he loved to preach, and he soon declared for the ministry, although he cared for neither theology nor religion. When he reached the age of 14 his interest became centered in a single branch of study, mathematics, and from this time onward this science remained a favorite pursuit. Because of his transparent regard for truth Thomas felt he could not accept Calvinism, and so he turned from theology to a scientific interpretation of the universe, which satisfied him for a time.

2. Education. From the age of 3 to 11 Chalmers attended the parish school, going thence to the University of St. Andrews, where he remained seven years, devoting the last three to a serious study of theology.

3. School standing and progress. In his first school Chalmers was merry, generous-hearted, and idle. During his first three years at the university he was still rather idle, but what he did undertake he carried on perseveringly, and with enthusiasm. At 14 he began to be attached to study, and was known from that time as "Mr. Chalmers, the mathematician." (See II 6.)

4. Friends and associates. (No specific record.)

5. Reading. The contradiction in Chalmers' interests is shown by the fact that he turned at 16 from an absorbing perusal of Godwin's *Political Justice* to Jonathan Edwards' *Treatise on Free Will,* devoting himself to the latter with such ardor that for a time he regarded nothing else, being transported by it into a kind of mystic ecstasy.

6. Production and achievement. Chalmers' first public prayer as a student of divinity was so original and eloquent as to awaken the wonder of all. At 16 and 17 he showed a taste and capacity for composition of the most liquid and glowing kind. From a bald style, he developed, in two years, the remarkably turgid manner that afterward characterized him. The passage with which he thrilled the great convocation in 1843, on the eve of the Disruption, was later found to be an exact transcript of one of his student discourses.

7. Evidences of precocity. At the age of 3 Chalmers was found pacing up and down in his nursery repeating to himself the cry of David, "Oh my son Absalom: oh Absalom, my son, my son!" He began to attend school at 3. (See also II 6.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* On the completion of his divinity course at the age of 18, and feeling that his knowledge of the world was limited, Chalmers undertook a tutorship in a large family of

high position. But the lack of discipline he found here made his life so unhappy that shortly afterward he gave up the position and became licensed as a probationer by the presbytery. By the age of 19½ he had preached his first public sermon. His ministerial efforts were approved by his friends, but as he himself still felt a greater interest in mathematics than in theology, he devoted the next two years to the study of natural philosophy at Edinburgh. At their conclusion, after a short period of service as assistant minister, he accepted an assistant professorship of mathematics at St. Andrews. As a teacher he kindled the enthusiasm of his students for mathematical science. His demonstrations in geometry were complete and beautiful, and he had the happy faculty of associating his subject with other pursuits.

At 23 he was ordained minister, but he had little interest in his holy office, and continued to give mathematical lectures at St. Andrews. He carried on this work for the next eight years, until, at the age of 31, he experienced a conversion which caused him thereafter to devote himself exclusively to his ministerial duties.

AII IQ 160 (Rel. coeff. of data, .75)

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WILLIAM ELLERY CHANNING (1780–1842)

An American Clergyman, Writer, and Philanthropist; One of the Chief Founders of American Unitarianism

AI IQ 145 AII IQ 150

I. *Family standing.* Both of Channing's parents belonged to the best American stock. The father, a Princeton graduate, was a lawyer of ability, a public-spirited citizen, and an active church member. The mother, daughter of a judge and member of Congress, was a woman of quick and versatile mind, simple, generous, and sincere.

II. *Development to age 17.*

1. Interests. Obvious characteristics gave Channing among his playmates the nicknames "Little King Pepin" and "Peacemaker." He was also called "The Little Minister" because of his fondness for preaching to the family or young friends assembled for the purpose. From his earliest youth Channing enjoyed doctrinal discussion, though he hated logic chopping and the dry bones of dogma. He often indulged in lonely rambles, making them occasions for contemplation and uninterrupted thought. Channing himself dated the beginning of his religious life from his 13th year. From the political discussions of his father and grandfather he early derived an interest in state and world affairs. At college his interest in scholastic and intellectual pursuits was strong. World problems attracted him

greatly, and he took an active part in student meetings and debating clubs. Channing enjoyed the out of doors: he was fond of animals and had an interest and skill in sports which he retained throughout his college career.

2. Education. On account of his mother's poor health William Ellery began to attend school at a very early age (he was less than 5 years old), and before he was 12 had attended four schools, of which only the third and fourth were well taught. At home his father and mother joined in training the minds, and disciplining the characters, of their children. At the age of 12 Channing was sent to study for a year under the direction of his uncle, in preparation for entrance to Harvard. At 14 he passed the entrance examinations, and for the next four years attended the university, living at the home of his uncle, Chief Justice Dana.

3. School standing and progress. In his third school Channing made rapid progress; he became the teacher's favorite and was extolled as a model for the other children's imitation. At his fourth school he was called patient and diligent, but was not remarkable for quickness of perception. Because he carefully considered a new subject, and did not answer until he fully understood its meaning, he was even thought dull. With Latin he made no progress at first, but having been initiated into its mysteries by a clerk in his father's office, he made very rapid progress and was soon distinguished for his classical attainments. In mathematical work, of which he was very fond, he was always quick and accurate. Considerateness, reflection, and thoroughness characterized Channing at school; so that he was respected by his instructors and admired by his fellows. To his relatives he became the source of great expectations. At college Channing's ambition was stirred by keen competition, and his already high standard of scholarship was more than maintained. The university authorities and the students were unanimous in assigning William Ellery to the first rank among his classmates, although he was not superior to all of them in any single study. He was particularly distinguished in Latin, history, and literature. He was especially fond of philosophy and natural science, and in spite of an absence of any strong leaning in that direction, he excelled in mathematics as well. In written composition and in public exhibitions he was always the foremost, and so it was no wonder that at the age of 16 he was one of a small group elected to membership in the "Speaking Club." Young as he was, he was soon chosen president of the club; and the same year he was selected to represent his class as valedictorian.

4. Friends and associates. Allston, the poet-painter, was Channing's boyhood playmate. Story, the distinguished jurist; Tuckerman and Phillips, noted ministers; Willard, Professor of Latin at Harvard; and others, were in their college days and after intimate friends of their admired classmate Channing. The Harvard professors influenced their pupil but, for the most part, without intimate association.

5. Reading. Channing was charmed by the works of Virgil and other classical writers from his first acquaintance with them, at or before the age of 10. At college he read the usual Greek and Latin classics, philosophy, history, theology, etc. He so delighted in geometry that the fifth book of Euclid was for him agreeable vacation reading.

6. Production and achievement. (See II 3.)

7. Evidences of precocity. Apparently Channing did not develop with special rapidity. (But see also above.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Channing continued to be popular at Harvard, and became a leader in politics and debating. But his main interest was in philosophy, and this he gratified by turning to the study of divinity in his last years. His final commencement oration on "The Present Age" was notable for its brilliancy, vividness, and eloquence.

On leaving Cambridge (aged 18) he went home to make plans. A palpable need for funds led him to accept for the next two years the offer of a tutorship from Randolph, U. S. Marshal of Virginia, who had been struck by the lad's intelligence and refinement. In his patron's home Channing met John Marshall, from whom he learned much; and he associated in spirit with Rousseau, Godwin, and Mary Wollstonecraft. He was also deeply affected by the wickedness of slavery.

At 19, as part of his religious preparation, Channing entered on a course of self-discipline. Poor and lonely, but seeking emancipation from himself, he went without sufficient food and clothing, cutting himself off, finally, from the social intercourse he really valued. Meanwhile he stuck to divinity harder than ever, writing searching accounts of his spiritual experiences to his intimate friends. He returned home to Newport at 20, and there continued to live the life of a recluse, devoting himself to study and self-discipline while at the same time instructing his brother and a young Randolph. He met and greatly admired Dr. Hopkins.

Two years later Channing was appointed regent at Cambridge, his duties being to maintain order in one of the college buildings. At the university he studied theology on a carefully thought out plan, and he shortly began to preach. At 23 he became pastor of the Federal Street Church, which he served thereafter for nearly forty years. Although he always shunned society, he began early to draw a large congregation by his eloquence, kindness, and generosity, and in his 30th year a larger church had to be built to accommodate his following.

AII IQ 150 (Rel. coeff. of data, .75)

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GEORGES JACQUES DANTON (1759–1794)

A Celebrated French Revolutionist

AI IQ 145 AII IQ 145

I. *Family standing.* Danton's father was a *"procureur,"* or small country solicitor. The maternal relatives, for the most part of lower rank than the paternal stock, were shopkeepers or carpenters; but one uncle was a priest. The mother's father was a builder. The mother herself, a woman of interesting personality, guided and governed her family by the strength and sweetness of her character, and, after the death of the father, when Georges Jacques was 2½, she superintended the training of her children.

II. *Development to age 17.*

1. Interests. Danton was a spirited scapegrace: in his childhood he attacked a bull, out of resentment, it is said, for having been cut in the lip by another bull when, in his infancy, he was being suckled by a cow. He had also a serious encounter with some pigs. At school he was the leader of his fellows, inciting them to riot or rebellion and then haranguing them to peace or to further lengths of insubordination. At the age of 12 he was called "anti-superior" or "republican" on account of his militancy against authority, and three years later he led a party of protest against the punishment of a fellow pupil and won his case. It is a notable fact that he never allowed any allusion to be made to this triumph. There is no special mention of Danton's athletic pleasures, except that he was fond of swimming.

2. Education. Danton's maternal grandfather was his first teacher. From home instruction the lad passed some time before he was 8 to a dame's school, where he learned easily, but found the discipline and consequent curbing of his liberty extremely distasteful. In his 9th year he was sent to a boys' school, where beside the elements of Latin he learned little except card playing, in which he frequently indulged. It is stated that young Danton usually divided the winnings with the loser, although the stakes were a kind of much coveted cake. As Georges Jacques did not appear to grow more sedate with the years, his mother thought to tame him by sending him to a religious institution in Troyes, and here he remained for a year. Following this he was sent to a pension conducted by the Oratoriens, where he entered in the third class and remained until his 17th year. The curriculum consisted mainly of Latin translation, repetitions of the Acts of the Apostles, and the catechism.

3. School standing and progress. Bored by the routine of school, Danton was always idle and often played truant. Nevertheless, his rapid comprehension, which enabled him to acquire instinctively and without reflection, kept him on an equality with the most assiduous. Because of the particular cast of his political and social opinions his companions called him "Catiline." At the ecclesiastical school his generosity caused a mistaken criticism from the master,

which Danton so took to heart that he refused to return for a second year. In his next school he passed for a good student without any very great effort, and in a curriculum that seemed unimportant and trivial the only subject that aroused his interest was the history of the Roman republic. Although he won several prizes, to which, however, he attached little significance, his first year was not highly successful. But at 14 he was distinguished for his compositions, written in a striking and original fashion, and for his energetic discourse; and a little later he finished his work in a blaze of glory by carrying off at the final contest every prize in French discourse, Latin narration, and poetry. His escapade at 16 (see II 6) made him a hero among his fellows.

4. Friends and associates. (No specific record.)

5. Reading. Danton's independent reading had given him (at 13) interests and inclinations diametrically opposed to the requirements of the school he was attending. At 14 his choice of books "began to show the taste and judgment of a precocious discernment"; he was turning more and more to the historians and philosophers.

6. Production and achievement. When he was 14 his themes, which always contained something striking and original, began to attract the interest of both pupils and teachers. At 16 Danton ran away from school "to get first hand information for a theme" by attending the royal coronation, and his surprised and delighted master would have given him first place for his production, had he not felt it necessary from the point of view of school discipline to punish the truant.

7. Evidences of precocity. Danton's grandfather and, later, his schoolmates and teachers seem to have regarded the lad as a prodigy.

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Danton left school at 17 to study law and nothing more is known of him until, at 21, he appeared as a solicitor's clerk earning his board and lodging by the exercise of his pen. He worked hard at his legal studies and occupied his leisure with athletics. Although large and muscular, Danton did not seem to be constitutionally strong. During a long illness he read, among other works, the *Encyclopedia,* the writings of the more recent philosophers (Montesquieu made a lasting impression), and volumes of Buffon, Corneille, and Dante. The youth became somewhat of a poet. He possessed a well-stocked library, and he could read Latin, Italian, and English.

At the age of 26 Danton was called to the bar, where he rapidly acquired fame by his pleading; his address in his first notable case was highly praised by the publicist Linguet. Sickened by the servility of the bar as a whole, he made the protest of an independent spirit in his addresses or pleas. It was in keeping with this aspect of his character that he preferred to plead for the poor against the rich, not seldom returning his fees.

AII IQ 145 (Rel. coeff. of data, .75)

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CHARLES DICKENS (1812–1870)

A Celebrated English Novelist and Humorist

AI IQ 145 AII IQ 155

I. *Family standing.* Dickens' father, a "kind-hearted, generous, conscientious, but easy going" individual, was originally a clerk in the navy pay office. He fell into financial difficulties, was required to serve a considerable term in the debtors' prison, and finally, after this sad experience, became a parliamentary reporter for one of the London papers. The mother, daughter of a lieutenant in the navy, attempted at one time, but without success, to set up a girls' boarding school.

II. *Development to age 17.*

1. Interests. A sickly little boy, Dickens was never good at sports, and so he read while the other boys played. If he were sad or in trouble, he consoled himself by impersonating characters in the books he had read (see II 5), often imagining the scenes laid in his native Chatham. At an early age he told stories off hand and sang comic songs. This latter gift earned for him, at the age of 9, the epithet of "prodigy" from a boat builder. In the warehouse where he was employed (aged 10 to 12) he was called "the young gentleman," although he was as skilful at the manual work carried on there as were his associates. The other employees inveigled him into beguiling the time with odd readings, and in return helped him with his work. During the period of his father's imprisonment young Dickens breakfasted and supped at the prison with his family, collecting there the histories of the different prison debtors, and making out a character and a story for each. Misery did not spoil his native capacity for humorous enjoyment. At school between his 13th and 15th year he was full of fun and spirits. His employer recalled that at 15 and 16 he took every opportunity for going to a theatre, and that he was not infrequently engaged to play minor parts.

2. Education. Charles's mother began when he was 4 to teach her son English and the rudiments of Latin, awakening his passion for reading and knowledge. After some months attendance at a preparatory day school, Charles was entered at a Baptist boarding school. Here he enjoyed especially the dramas enacted by the boys

on the playground. When Charles was in his 10th year the family moved to the poorest part of London. Here he was not sent to school, but he learned to observe and evaluate the people he met, and to know poverty. After his father had been cast into prison for debt, Charles worked in a blacking warehouse, a crazy, tumble-down old building overrun with rats. The elder Dickens was released from prison by a legacy when his son was 12, and now he was able to send the boy to Wellington House, a school of some celebrity, which Charles attended for two years.

3. School standing and progress. The master of his second school pronounced Dickens (aged 7 to 9) "a boy of capacity," but at Wellington House Academy, between 12 and 14 years of age, although he may have done his tasks well enough, he showed no indication of future literary ability.

4. Friends and associates. In the blacking warehouse "Bob Fagin" was one of Dickens' co-workers, and the picture of this character was so stamped upon the boy's mind that he could reproduce it in detail years later. When the Dickens family moved to the prison Charles lodged with "Mrs. Pipchin," and again a lasting imprint of personality was made.

5. Reading. Before he was 7 years old Dickens was reading such books as *Roderick Random, Peregrine Pickle, Humphrey Clinker, Tom Jones, The Vicar of Wakefield, Don Quixote, Gil Blas,* and *Robinson Crusoe.* Between 7 and 9 he read the *Spectator, Tatler, Idler, Citizen of the World,* and Mrs. Inchbold's *Collection of Farces.* At 9 he read *Scottish Chiefs,* Holbein's *Dance of Death,* and Coleman's *Broad Grins.* Out of his scanty weekly earnings Dickens (aged 10 to 12) paid his board and bought in addition a cheap periodical, the *Portfolio.* When he was 15 or 16 he "educated himself" through assiduous attendance in the British Museum Reading Room.

6. Production and achievement. Before he was 7 Dickens wrote a tragedy, "Misnar," founded on one of the *Tales of the Genii.* At 9 he wrote, in secret, sketches of an old deaf woman and an old barber. When he was at school, and between 12 and 14 years old, he wrote small tales; led in theatricals among the boys; headed the gang in impersonating beggars; and invented a "lingo" by speaking which he and the others hoped to be considered foreigners. A note to a classmate, written when he was 13, shows his interest in romance and also his humor.

For his first employment in the warehouse, Dickens received six or seven shillings a week. At 15 he became a clerk in an attorney's office, beginning at 13*s.* 6*d.*, and being gradually increased to 15*s.* His employer recalled him as "a bright, clever-looking youth."

7. Evidences of precocity. (See II 1, 3, 5, and 6.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Dickens became a reporter in one of the London law offices and continued for two years in this

capacity until, at 19, he became a parliamentary reporter, soon noted for his excellent work. When he was 21 his first published work, a short literary sketch, appeared, and this was soon followed by *Sketches by Boz.* At the age of 24 Dickens ceased his parliamentary reporting, married, and commenced to publish *Pickwick Papers* by installments. The novel acquired immediate popularity and has never failed to have a wide circle of admirers. *Oliver Twist* was also started about this time, and Dickens tried his hand at writing for the stage as well. Part of the next year, his 26th, he spent journeying abroad with his wife. In the novels written at this time, and even in the earlier ones, Dickens showed a remarkable talent for portraying the oddities of life in masterly fashion.

AII IQ 155 (Rel. coeff. of data, .53)

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BENJAMIN DISRAELI (1804–1881)

Prime Minister of England; and Author

AI IQ 145 AII IQ 150

(There is a difference of one year between two alleged dates of Disraeli's birth. The correct date is probably 1804, and not 1805.)

I. *Family standing.* Disraeli's paternal ancestors were Jews from Spain or Italy. The grandfather was a merchant who left a large fortune to his son, Disraeli's father, a *litterateur* of great popularity in his day. The mother seems to have belonged to an English Jewish family of some standing.

II. *Development to age 17.*

1. Interests. Disraeli was remembered at school as a big, kind boy who told stories of robbers and caves, and illustrated them with rough pencil sketches. "He was a very rapid reader, was fond of romances, was very fond of playing at horses—always full of fun; and when he went home in the Blackheath coach, fired away at the passers-by with his pea-shooter." On a wet day he would amuse his companions with a little extemporized drama. At school he took the part of Gratiano in *The Merchant of Venice,* but failed, it is said, to win applause. In the holidays, he was fond of playing at Parliament, and always reserved for himself the part of leader and spokesman of the Government. His schoolmates considered him Toryish in politics. It is reported that he "had a taste, not uncommon among school boys, for little acts of bargaining and merchandise."

2. Education. Disraeli was brought up in the Jewish faith, but at 6 or earlier he attended the school of a liberal Independent Prot-

estant minister, and at 12 was baptized into the Church of England. At about 13 he was transferred to a school in Epping Forest, where he continued two, three, or four years under the direction of Cogan, the master of the school, a Unitarian minister, and a noted Greek scholar. At 15 or 16 Disraeli left school and continued his education at home until he was 17.

3. School standing and progress. Disraeli says: "I was quite fit to have gone to a university when I left Cogan. Not that I was more advanced than other boys of my age, not so advanced, never could reach the first class. . . . . Though I was not eminent even in the second class, I read a great deal."

4. Friends and associates. (No specific record.)

5. Reading. At Cogan's School Disraeli read in Greek: Herodotus, Thucydides, some of the *Iliad,* the *Odyssey,* Sophocles, Euripides, Theocritus, and Xenophon. In Latin he read: Cicero, Caesar, much of Livy, something of Tacitus, all of Virgil and Horace, some of the best things of Catullus, the first book of Lucretius, and all of Terence.

6. Production and achievement. A diary kept when Disraeli was 15 shows "a precocity of mind, a readiness to appraise and criticise, and a confidence in passing judgments" on varied literary matters.

7. Evidences of precocity. (See II 6.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Disraeli was attached to a firm of London solicitors as a kind of private secretary; at home he studied deeply, reading classics, philosophy, and law. In his 20th year he made a short tour of Europe with his father, and his letters to his sister, written at this time, are as conspicuous for their descriptive power as for a somewhat florid style. Having decided about this time not to become a lawyer, he devoted the next year or two to writing. He published articles and pamphlets, and in 1826, when he was 21, *Vivian Grey* appeared and met with immediate popular approval. In the following year its sequel was published, but with what success is not stated. Reversing his previous decision, Disraeli now resumed the study of law at Lincoln's Inn, but a little later had the misfortune to suffer a severe illness. He made a perfect physical recovery, but, becoming very despondent, he felt that a great reputation was alone capable of giving him pleasure, and he doubted that this was in his capacity to attain. In the meantime he was not idle: at 23 he published *The Voyage of Captain Popanilla,* and at 25 *The Young Duke.*

AII IQ 150 (Rel. coeff. of data, .60)

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RALPH WALDO EMERSON (1803–1882)

An American Lecturer, Essayist, and Poet

AI IQ 145 AII IQ 145

I. *Family standing.* Emerson was descended from a long line of ministers of energetic Puritan stock. His father, a theologian of liberal views, was the minister of a Harvard village church and later of the First Church, Boston. He was the author of a number of sermons, discourses, and hymns, and the editor of the *Monthly Anthology.* His name is associated with the founding of well-known libraries, and of historical, physiological, and philosophical societies. It is reported of the mother's father that he was "a man of great firmness of character and sound practical wisdom." Her own mind and character were of a superior order; "her sensible and kindly speech was always as good as the best instruction."

II. *Development to age 17.*

1. Interests. Emerson's main recreation early and late was in omnivorous reading (see II 5). He was not demonstrative enough to be popular with other boys, nor did he often engage in their plays. At 14 he "learned to skate, rhymed, wrote, and read, besides his staple commodity, schoolkeeping." At 15 he gave private instruction, but found it "very irksome." It was at this age, and during his sophomore year at Harvard, that he became the leading spirit in a little book-club.

2. Education. Emerson's education began at a dame's school before he had reached the age of 3, continued by a brief attendance at grammar school, and was followed then by four years at the Boston Latin School. While a pupil in the latter institution, aged 10 to 14, he also had private instruction for two hours a day in writing and ciphering. Before he was quite 14½ he matriculated at Harvard, where he graduated A. B. four years later.

3. School standing and progress. A week before young Emerson's 3rd birthday, his father recorded that he "did not read very well," but the lad progressed in favor from that time, so that during his last year at the Latin school some of his themes were kept by a delighted master to show to the school committee. The lad was "always a good scholar, because honestly studious, but not eminent." Up to the age of 14 the study of all subjects except mathematics, "in which he was always dull," was "no hardship to him." During the last term of his freshman year at college, and thereafter during his 16th year, he was private tutor to Samuel Kirkland Lothrop, two years younger than himself. In his junior year, having qualified as a worthy and deserving student, he received two stipends.

4. Friends and associates. Before he was 10 Emerson had made two friends for life, William H. Furness and Samuel Bradford. The two Emerson brothers, Ralph Waldo and William, who was two years his senior, were from their earliest years especially devoted and congenial companions.

5. Reading. When nearly 10 Emerson wrote characteristically in a letter to his aunt, "I have from about a quarter after seven till eight to play or read. I think I am rather inclined to the former. After supper we take our turns in reading Rollin." At 12 he had begun *Telemachus* in French at school, and at home was reading Priestley's *Lectures on History.* At 13 Ralph Waldo read French books with his brother, and before he was 15 he had "read omnivorously" in all the available works of history, fiction, and poetry; "especially did he and his brother delight in fine rhetoric and eloquent passages." Emerson was fascinated by the two sceptics, Montaigne and Pascal. At college, history, memoirs, English reviews, and the poetry of the day, which he criticised in his notebooks, were most prominent in his reading.

6. Production and achievement. At the age of 10 Emerson wrote "The History of Fortus, a Chivalric Poem in one volume, complete; with Notes, Critical and Explanatory, by R. W. Emerson, LL. D." (The notes were not added until three years later.) William Furness contributed "engraved" illustrations. Emerson wrote occasional verses, celebrating the prowess of American frigates in the war of 1812, and in his last school year (aged 13 and 14) he more than once delivered "original poems" on exhibition days. When his family left Concord, he (aged about 11) recited an original ode by way of farewell. At college (aged 15) he received two marks on the back of his critical discussion of *Guillaume le Conquerant* "which distinction only six of the class obtained." In the winters during his college course Emerson tried school teaching, but he had no taste for it. (See also II 3.)

7. Evidences of precocity. A letter written to his aunt when he was not quite 10 is a model of precise, cultivated expression. As a boy of 11 in Concord, Emerson entertained the frequenters of the grocery store with recitations of poetry, and before he was 14 he was noted among grown people, who were apt to be fond of him. (See also II 3, 5, and 6.)

AI IQ 145 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At the commencement exercises at Harvard, Emerson had a part; and he was also Class Day poet, his production receiving the praise, "superior to expectation." Between the age of 18 and 20 he assisted his brother by teaching in a school for young ladies in Boston, and in the next year (aged 21), while his brother was in Europe, he had sole charge of the school. At this same period he was writing thoughts on morals, on laws of compensation, and on individual genius.

When nearly 22 Emerson went to Cambridge to study divinity, but was shortly obliged to leave the university on account of sickness. A year of teaching in various schools followed. "Approbated to preach" at 23, he was obliged to go South for his health. Emerson had preached his first sermon at 22. At 24 he occasionally supplied pulpits in Massachusetts, and at 25 he entered Divinity Hall, Harvard, where he spent the year studying and reading while

regaining his health. Late in the year he received a call to become assistant pastor in the Second Church in Boston. He became engaged to be married the same year.

AII IQ 145 (Rel. coeff. of data, .75)

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FRANÇOIS DE SALIGNAC DE LA MOTHE FÉNELON (1651–1715)

A French Prelate, Orator, and Author

AI IQ 145 AII IQ 145

I. *Family standing.* The father of Fénelon belonged to an ancient and distinguished family which had produced many statesmen and ambassadors, but in more recent times had become impoverished. Fénelon's mother was also of noble birth.

II. *Development to age 17.*

1. Interests. (None are recorded aside from his studies.)

2. Education. Fénelon was educated at home under a tutor until he reached the age of 12. His father was tireless in his attention to the boy's training, whether physical, mental, or moral. His mother, also, is said to have exercised a great influence over his childhood. The boy's first education was religious, "probably enriched with classical literature and a knowledge of antiquity."

At 12, and just as Fénelon entered the University of Cahors, at that time a celebrated school, his father died; but the direction of his education being assumed by his uncle, the Marquis de Fénelon, the boy's plan of study was unaltered. He received the degree in arts at Cahors at the age of 15, and thereafter attended school in Paris at the University of Plessis for two years.

3. School standing and progress. Fénelon had a lively intelligence, which was stimulated at home by instructive conversations, his sensitive spirit meeting there only tenderness and understanding. His unusual talents were early recognized by his family, and his early training was well adapted to his particular needs. So thorough was his first instruction that when, at 12, he entered the University of Cahors he knew Greek perfectly and wrote both French and Latin with ease and elegance.

4. Friends and associates. (None are recorded, apart from his family.)

5. Reading. At 12 Fénelon had read the works of the ancient poets, philosophers, and orators, and had already attempted some reproductions.

6. Production and achievement. (See II 5.)

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Fénelon entered St. Sulpice at the age of 17 and remained there ten years in perfect happiness. The Church was his true vocation and he was devoted to his teacher, with whom he worked in perfect concord. After receiving orders, Fénelon, at 24, desired to do religious mission work, first in Canada and later in the Levant, but in both instances he was dissuaded by poor health and the wishes of his family. At 24 he was given charge of the parish of St. Sulpice, and three years later, at 27, he was appointed Superior of a Community for Young Women, a position for which he was peculiarly fitted by "gentleness, grace, good sense, and elegant and ornate fluency of speech."

AII IQ 145 (Rel. coeff. of data, .20)

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JOHANN GOTTLIEB FICHTE (1762–1814)

A Celebrated German Metaphysician

AI IQ 145 AII IQ 155

I. *Family standing.* Fichte's father was a linen ribbon weaver and merchant of simple but upright village stock. The mother, the daughter of a wealthy linen-spinner, who felt that she had married beneath her rank, was a more forceful character than her husband and, to all intents, the head of the household. She designed her eldest son for the ministry.

II. *Development to age 17.*

1. Interests. From an early age Fichte was fond of solitary walks and quiet contemplation. Under his father's tuition he became an eager scholar; at Schulpforta he was a zealous student.

2. Education. Fichte's first lessons were given by his father, who instructed him in reading, told him stories of his own early experiences, and taught him hymns and proverbs. The pastor also gave Fichte some instruction. The Freiherr von Miltitz, apparently a person of some importance in that region, heard of the village boy with a remarkable memory, and determined (with the consent of the parents, which he obtained with difficulty) to take the boy away and bring him up as his own child. After a few months in the gloomy castle, and at the age of 8 or 9, Fichte was sent for his more adequate instruction to a village clergyman, to whom he became deeply attached and who educated him, somewhat unsystematically, until his 12th year. From his kind country mentor the

boy was now sent on, by the Freiherr, first to the town school at Meissen, and perhaps a year later, to the famous Schulpforta, where he remained until he was 18. Soon after his arrival at the last named academy he attempted to run away because of the bullying he had received, but later he found life more supportable.

3. School standing and progress. Under the care of the clergyman, and when the child was between 8 or 9 and 11, he made such rapid progress that his instructor soon found his own learning insufficient for the boy's further training. At Schulpforta he was "not incapable in his studies," and he soon overcame by industry the defects of his previous unsystematic education.

4. Friends and associates. The pastor of his native village, the Freiherr von Miltitz, the clergyman who educated him, and his student adviser at Schulpforta (later a distinguished divine), interested themselves in Fichte and aided his progress.

5. Reading. At 7 the little lad received, as a present from his father, *The Story of Siegfried,* which so absorbed his interest that he neglected his duties. Reproved, he decided to remove temptation by throwing the book in a stream. Afterward, filled with remorse and regret at his apparent ingratitude, he wept, and his father punished him for destroying his gift; nevertheless the boy refused to accept a second copy of the book which was offered him.

6. Production and achievement. A letter written at 13 reports his expectation of receiving a very good school report.

7. Evidences of precocity. Fichte early (before 7?) mastered his Bible and catechism, and even read the morning and evening prayers to the family circle. The village pastor perceived that the boy had unusual powers, noting particularly a remarkable memory which enabled the 8 or 9-year-old lad to repeat the whole of the sermon, arranged by heads and with the illustrative texts.

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Fichte left his school at 18, having found the later years there more agreeable than the earlier period. Fairly well read, and with a good scholastic record, he entered the University of Jena as a theological student. For the next three years, in miserably poor circumstances, he continued his studies at Jena and Leipzig, turning gradually from the study of theology to that of philosophy.

At 22 he became a tutor, but owing to his unrelieved poverty, suffered a precarious existence for the next four years. He still managed to carry on some study, however, and retained his ambition to become a village pastor, although unable to obtain financial help in order to complete his theological studies. When offered a tutorship at Zürich he accepted (aged 26), and set out on the journey to Switzerland on foot, lacking sufficient means for any other form of travel.

AII IQ 155 (Rel. coeff. of data, .75)

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CHARLES JAMES FOX (1749–1806)

A Celebrated English Statesman and Orator

AI IQ 145 AII IQ 145

I. *Family standing.* Fox's grandfather rose from a humble origin to positions of trust and distinction under Charles II. Fox's father "was a man of great parts, loose morals, more fond of money than of power . . . . an able debater, a corrupt politician," who held the offices of secretary of state and paymaster of the forces, and won a title and a peerage; hated by all England, he was adored in his own household. Fox's mother had been Lady Caroline Lennox, daughter of the Duke of Richmond, a charming and noble lady; she married the elder Fox against her father's will.

II. *Development to age 17.*

1. Interests. Fox was as eager in study as in social life. (See II 2, 3, 4, and 5.)

2. Education. After early home instruction the boy was sent, at the age of 7 and at his own request, to a school at Wandsworth, then much in vogue among the aristocracy. At 9 "he determined to go to Eton and to Eton he accordingly went" although the family were still concerned for his health at this time because he had been a frail boy. When Charles James was 14½ his father took him to Europe on a round of idleness and dissipation, taking "not a little pains to contrive that the boy should leave France a finished rake." After four months of life abroad, the boy persuaded his father to send him back to Eton, and there he "passed another year with more advantage to himself than to the school." At 15 he was sent to Oxford where he read a great deal, particularly in mathematics, and where he remained, except for an interval during which he made a trip to Paris, until he was 17.

3. School standing and progress. At Eton, Fox (aged 9 to 15) appears to have been a diligent scholar. During his last year his rhetorical training was especially emphasized, and, with his repertory of favorite passages from the dramatists and his passion for an argument, he was always to the fore, both in the speech room and in the debating society. His school-boy oratory has been commemorated in verse by Lord Carlisle. After hearing his son speak at Eton, the elder Fox thought it worth while to bring Charles James (aged 15) to town to attend parliamentary debates. At Oxford

the youth (aged 15 to 17) studied hard in spite of his father's indulgence and his application to work impressed even his tutor, to such a degree, in fact, that his college associates were held back in their studies, during his absence in Paris, to proceed with him on his return.

4. Friends and associates. At Eton, Fox, although "saddled with the encumbrance of a private tutor, was highly popular among his schoolfellows. There was that about him which everywhere made him the king of his company, without effort on his own part, or jealousy on the part of others."

5. Reading. Fox mentions that his reading at Eton was principally confined to the Eton books of extracts. At Oxford he read widely and enjoyed what he read; he learned to read the Greek and Latin poets with facility, and became familiar with French and Italian literature. During the long vacation, when he was 16, Fox remained at Oxford continuing his study. He said that there was "no play extant, written and published before the Restoration, that he had not read attentively."

6. Production and achievement. Two very polished elegiac exercises in Latin written during his last years at Eton, and before he was 16, are preserved, while French verses written at 15 attest his facility with that language. He was, in his middle teens, a youth of ability, endowed with generally recognized good sense and good nature.

7. Evidences of precocity. "As a child he was remarkable for the quickness of his parts, his engaging disposition, and early intelligence." When hardly 2½ he was recognized as a "clever little boy," and soon after as the superior of his elder brother; he was "at once the most forward and the most engaging of small creatures. His father worshipped him from the first." The father wrote thus of his son (aged 7): "I found Charles very well, very pert, very argumentative. He is all life, spirits, motion, and good humor. Stage-mad, but it makes him read a good deal." The boy, although humored in every whim, learned to control his passionate temper from hearing his father say that he was "a sensible little boy and would cure himself." An unlucky slip made by his mother in answering a question on Roman history settled, once and forever, her claims as an instructress of her irrepressible son. The boy's "sagacity" when he was no more than 13 was noticed by the Duke of Devonshire.

AI IQ 145 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Leaving Oxford at 17, Fox spent the next two years on the Continent enjoying a life of dissipation. The only intellectual gain he seems to have made there was in acquiring knowledge and taste for the Italian language and literature.

On his return, at 20, he found that through his father's influence he had been for half a year or so member of Parliament for the pocket borough of Midhurst. He accordingly commenced a regular

attendance at the famous assembly of which, for the next twenty-nine years, he was constantly to be a member. Gradually his speeches made an impression, and at 23 he was appointed to a junior cabinet position; but he was dismissed from it two years later for too liberal views. From this time, however, he seems to have blended sincere thought with forceful discussion, and may be said to have commenced his parliamentary career in earnest. His vice at this time was gambling; and so strong was the passion that fortune and influence alike were weakened. Gibbon states that on one occasion he lost £11,000 in twenty-two hours' play.

AII IQ 145 (Rel. coeff. of data, .75)

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BENJAMIN FRANKLIN (1706–1790)

An American Diplomat, Statesman, and Scientist

AI IQ 145 AII IQ 145

I. *Family standing.* The Franklins were originally smiths in a Northampton village. Benjamin's father, an ingenious man of many talents, endowed with sound understanding and solid judgment, had been bred a dyer, but became a tallow chandler and a soap boiler. He emigrated to America. Franklin's mother was the daughter of a "godly, learned Englishman who was something of a poet."

II. *Development to age 17.*

1. Interests. Franklin was fond of the water, and at an early age became an excellent swimmer, and a skilful navigator of small boats. He was chosen captain of boating expeditions and was often the leader in other enterprises. He was apt also to make ingenious inventions, such as pallets for rapid swimming, or a kite for accelerating progress through the water.

At 15 his reading of theological works produced doubts in his mind as to religious doctrine. But he continued to read and study both religious and secular works, at night, early in the mornings, and on Sundays. He also gratified his love of debate by arguments with a bookish friend.

2. Education. At the age of 8 Franklin was sent to the grammar school, for his father intended him for the church; but at the end of a year he was withdrawn because the expense of the training was too great. At 9 he was sent to a school where writing and arithmetic were taught. From the age of 10 to 12 he was apprenticed to his father to learn soap and candle making; but he disliked the trade, and was only with difficulty dissuaded by his father from going to sea. The elder Franklin took his son to see joiners, turners, and other tradesmen at their work, hoping to interest him in some

trade. At the age of 12 Franklin was apprenticed to a cutler; but a little later, recognizing his bookish proclivities, his father determined to make him a printer.

3. School standing and progress. Franklin's early readiness in learning to read (for he could not remember the time when he could not read), and the opinion of his friends that this boy would certainly make a good scholar, encouraged the father to continue his son's education. At school Franklin (aged 8 to 9) rose from the middle of the class of that year to be its head. He then skipped one class and was promoted to the third. Franklin states that at his second school he made progress in writing, but failed in arithmetic. Ashamed of his ignorance in the latter subject he determined, at 16, to master it once for all; he proceeded to go through an arithmetic and two books of navigation (and this with ease), and learned also the geometry they contained.

4. Friends and associates. John Collins, a studious boy, was Franklin's associate in discussion and argument.

5. Reading. An uncle proposed to give Franklin all his shorthand volumes of sermons if the boy would learn his character; and this he accordingly did. At an early age Franklin was fond of books; he read *Pilgrim's Progress,* and bought for his own use Bunyan's works in little volumes, which, however, he later sold to buy Burton's *Historical Collections.* In his father's library, he read works on theology, Plutarch's *Lives,* De Foe's *Essay on Projects,* and Mather's *Essays to Do Good.* During his period of apprenticeship to his brother, Franklin (aged 12 to 16) had access to better books than before, notably in the library of Mr. Matthew Adams; and he often sat up the greater part of the night reading. From his careful reading of refutations of the teaching of the deists, Franklin became convinced of the deist position. From a study of the third volume of the *Spectator,* he evolved a method of learning the art of prose writing. At 16 he read Locke *On the Human Understanding,* Pascal's *Provincial Letters, The Art of Thinking,* and most of the works of Cabanis, in translation, which delighted him. He studied an English grammar, read Xenophon's *Memorable Things of Socrates,* and adopted the Socratic method in argument. He also read Shaftesbury and Collins. He saved enough by boarding himself to buy books, and he reserved the dinner hour for study.

6. Production and achievement. While apprenticed to his brother, Franklin attained great proficiency as a printer's assistant. At 15 he took a fancy to poetry and, encouraged by his brother, wrote little verses; *The Lighthouse Tragedy* and a sailor's song on the taking of a notorious pirate were produced at this time. The former, printed and sold about town, had a great vogue, but, in spite of this, the young poet was turned from verse writing by the ridicule of his father. Anonymous contributions to his brother's paper were, however, accepted and inserted. In disputation and argument Franklin developed such skill that few could stand against him.

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* When Benjamin was 17 his brother was committed to prison for political writings, and the younger man assumed charge of the newspaper. Shortly afterward a fortunate accident gave young Franklin a chance to escape from his indentures, and he went to New York and thence, later, to Philadelphia. He reached the latter town in poverty, but soon secured employment as a printer's assistant. His talents attracted the attention of the governor, and soon, through his patronage, Benjamin achieved comfort and affluence. The governor offered to set him up in an independent business, and Franklin spent the next eighteen months in England in preparation for a career as printer. In England he secured employment in a printing house, and soon had a high reputation as a workman. Shortly afterward he published a metaphysical pamphlet, and this was the means of introducing him to many interesting people. He was noted, too, for his skill in swimming, and won quite a vogue as a swimming teacher.

At 20 Franklin returned home to Philadelphia to his own business, and here he showed his inventive capacity by making on occasion, both type and ink. Owing to his great skill, he was invited by his former master to return to the old business in order to assist in filling a government order for printing paper money. Franklin soon became associated with prominent local men, such as members of the assembly and judges, and he founded a debating society. By the time he was 24 his printing business had supplanted those of his competitors; and now by means of an article of his own on the *Nature and Necessity of Paper Currency,* he received a large order to print the currency which was voted shortly after. At 25 he established one of the first circulating libraries and in the following year published the first volume of *Poor Richard,* which proved to be a great success.

AII IQ 145 (Rel. coeff. of data, .60)

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GALILEO GALILEI (1564–1642)

A Famous Italian Physicist and Astronomer

AI IQ 145 AII IQ 165

I. *Family standing.* Galileo was descended from a noble Florentine family long and honorably connected with the governing bodies of the Republic. His father, Vincenzio, a business man of scanty income, was well endowed intellectually. His published works on music show evidence of great knowledge and laborious research, in a spirit of inquiry, independent of authority and tradition. There is no record of Galileo's mother beyond her name.

II. *Development to age 17.*

1. Interests. Young Galileo's favorite pastime was the construction of ingenious toy machines. But he had taste and skill in artistic as well as practical pursuits: he was a creditable performer on several musical instruments, among which the lute was his favorite; he showed considerable skill in drawing and painting, and thought at one time of becoming a painter, and he was also very fond of poetry. While engaged in study in the Vallombrosa monastery, the religious life of the church appeared so attractive to him that he became a novitiate of the order.

2. Education. Until the age of 12, Galileo received his education partly in the school of Jacopo Borghini and partly at home, where his father, who had an extensive knowledge of Greek and Latin literature, helped him in lessons in these languages. He was sent to the far-famed Monastery of Vallombrosa for the regular literary education of a well-born youth. There he studied Greek and Latin readily but showed little taste for logic. His father removed him at 15, to make of him a cloth dealer, but soon selected a scientific career as more fitted to his son's superior abilities. Medicine was chosen as a remunerative branch, and at 17, Galileo was sent to the University of Pisa to take the medical course.

3. School standing and progress. From his early boyhood Galileo was remarkable for intellectual aptitude of various kinds.

4. Friends and associates. His reputation as a draughtsman and colorist brought several artists to him, seeking his criticism of their work. Cigoli once said that Galileo alone had been his teacher in perspective.

5. Reading. Galileo was very fond of poetry.

6. Production and achievement. As a boy he showed considerable mechanical inventiveness. His father taught him the theory and practice of music and the boy became so skilful with the lute that he excelled his father "in charm of style and delicacy of touch."

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Galileo's teacher of medicine at Pisa was the celebrated physician and botanist, Andrea Cesalpino. Galileo never had a relish for the subject of his study and after nearly four years left the university without taking the Doctor's degree. In the philosophical classes he "tried to understand and often dared to contradict"—an unheard of audacity in one so young. When 18, one day in the cathedral of Pisa, so the story goes, his attention became attracted to the swinging lamp and he observed that the oscillations, gradually becoming less and less in amplitude, were all performed in the same time, as proved by his pulse. On this principle he constructed an instrument called pulsilogia, which long remained in general use by physicians. Galileo first learned mathematics at 19 on becoming acquainted with Rici, an able mathematician and tutor to the grand-ducal pages. Soon he became interested in the study of Euclid, and he devoted himself heart and

soul to mathematics to the exclusion of medicine. At 22 he constructed the hydrostatic balance. An essay on the center of gravity in solid bodies brought him fame throughout Italy, but his applications for the chair of mathematics at Bologna, at Padua, and at Pisa met with no success until he was 25, when he became professor of mathematics at Pisa. About this time he discovered the cycloid. (The results of his researches in motion were given in his treatise *De Motu Gravium*, written when its author was 26.)

AII IQ 165 (Rel. coeff. of data, .60)

REFERENCE

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EDWARD GIBBON (1737–1794)

A Famous English Historian

AI IQ 145 AII IQ 155

I. *Family standing.* Gibbon's paternal grandfather was a man of high ability as a master of commerce and a financier, who made two fortunes and lost one. The father was a well educated, but weak and impulsive individual who "moved gracefully in the highest circles of society," and lived always beyond his means. The mother, daughter of a merchant, was an amiable lady of elegant manners and many talents, whose energy was chiefly devoted to checking her husband's excesses.

II. *Development to age 17.*

1. Interests. Want of physical strength disqualified little Gibbon from athletic sports, and so at an early age he became a great reader. At 13 an interest in history was aroused and became all absorbing. (See II 5.)

At 16 Gibbon was converted to Catholicism, by reading Bossuet, and on his own initiative was received into the Catholic Church. His act amounted at that time to high treason, and the gates of Oxford were closed to him, as a Catholic, forever. From childhood he had been fond of religious disputation; and at Oxford, idleness drove him back to it again.

2. Education. Because of his frail health, the training of Gibbon's mind had to be neglected for the culture of his body. Nevertheless, instruction was not entirely omitted. His first schooling was received from his aunt, an able woman of excellent gifts. From the age of 7 to 8½, he was instructed by a tutor in arithmetic and the rudiments of English and Latin. At the age of 9, as his health was improved, he was sent for a time to a boys' school, and here the tumult at first almost overwhelmed the timid lad. At 10 or 11, on the death of his mother, he left this school and resided for a time with his admirable aunt. He then entered Westminster School, where he remained two years. From 13 to 15, while undergoing treatment for a strange nervous difficulty, he had tutors with whom, when he was

free from pain, he read such of the classical writers as attracted him. Recovered in health he was sent at 15 to boarding school; but his tutor gave him no instruction. The same year he matriculated at Oxford where he spent fourteen months "idly and unprofitably." His 17th year was passed in exile in Switzerland, while a Swiss Calvinist pastor fulfilled two duties laid upon him by Gibbon's relatives: he superintended the young man's studies and reconverted him to Protestantism. Study in Lausanne during the next four years laid a large part of the foundation of Gibbon's extensive learning.

3. School standing and progress. At Westminster School, Gibbon had, at the age of 13, climbed to the third form. At Oxford he was bored by the dull and inferior atmosphere, and so he spent most of his days there in travel about the country or in desultory study.

4. Friends and associates. Gibbon was shy; and the only associates or friends reported before he was 17 were his parents, his aunt, and his tutors. At college he stood coldly aloof from his fellow students and their gaiety, preferring the companionship of his tutor.

5. Reading. At 9 Gibbon studied Phaedrus and Nepos and was acquainted with Pope's *Homer* and the *Arabian Nights*. At the age of 9, 10, or 11 he read Dryden's *Virgil*, Ovid's *Metamorphoses*, and many volumes of English poetry, romance, history, and travel. During the period of ill health, from his 14th to his 16th year, he was comforted by wide but desultory reading, especially in ancient, modern, and universal history. In his 15th year he stumbled on Oriental history, and, before he was 16, had read everything he could find in English on the subject.

6. Production and achievement. At the age of 15 Gibbon made his first known attempt at writing history, an unfinished but ingenious essay entitled "The Age of Sesotris" in which he reported an investigation concerning the probable date of the life and reign of the conqueror of Asia.

7. Evidences of precocity. "In childhood" Gibbon was praised for the readiness with which he could multiply and divide, by memory alone, two whole sums of several figures. His "innate rising curiosity" made him old beyond his years and removed, when he was 10 or 11, all distance between him and his aunt so that they conversed on every topic, familiar or abstruse. Sometime between 14 and 16, Gibbon attempted to weigh the various systems of calculating time; and his sleep is said to have been disturbed at this period by the "difficulty of reconciling the Septuagint with the Hebrew computation." When Gibbon entered Oxford at 15, his stock of erudition "might have puzzled a doctor"; while of his ignorance "a school boy would have been ashamed." The other gentleman commoners who were disposed to laugh at Gibbon were told by his tutor that, were their heads all scooped, Gibbon had brains enough to fill them all.

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Gibbon spent five years (aged 16 to 21) at Lausanne, Switzerland, where he became in point of view

a continental European, while French became the natural language of his thought and expression. He studied systematically and thoroughly both the Latin and the Greek classics. After a love affair at 20 he returned to England. At 22 he was commissioned captain in the militia, and spent the next three years in military service, years which, although extremely distasteful, were of great service to him later as an historian. At 24 he published his *Essay on the Study of Literature.* At about this time it is recorded that he read in Homer about a book a week, this being apparently his first reading of the Greek classic in the original. Gibbon was freed from further military service by the disbanding of the militia when he was 25, and soon after he took advantage of the opportunity to undertake another continental journey.

AII IQ 155 (Rel. coeff. of data, .53)

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SIR WILLIAM HERSCHEL (1738–1822)

A Celebrated English Astronomer, of German Birth

AI IQ 145 AII IQ 140

I. *Family standing.* The Herschel family had been driven from Moravia because of their steadfast Protestantism. William's grandfather, the son of a brewer, was a landscape gardener of versatile gifts, who had acquired some distinction in the service of the King of Saxony. The father was intended for the same occupation; but, having no interest in it, and being possessed of a gift for music he studied that art and became oboe player in the Hanoverian guards. A man of high talent and wide culture, he was, because of his limited and specialized training, never in other than straitened circumstances. It was therefore his wish that his children should have the general education that he had lacked. The mother, a typical *hausfrau,* believed the sorrows of the family were the result of too much education; and she favored and petted her less able children at the expense of the more gifted.

II. *Development to age 17.*

1. Interests. Before he was 14, and out of school hours, William Herschel attempted to learn what his master knew of Latin and arithmetic. An insatiable desire for knowledge, thus early awakened, resulted in a steadfast resolve to devote himself to study and so, although he loved music exceedingly, he determined to devote every spare moment to increasing his knowledge of science and literature, in which he expected to find his future happiness. Lively discussions

on philosophical questions often kept the boy and his father from sleep all night; and young William would frequently continue a discourse with his brother, with ardent interest on his part, until his less enthusiastic companion was fast asleep.

2. Education. Herschel was taught to play a violin as soon as he was able to hold one, and at the age of 4 was set on a table to render a solo on a diminutive instrument especially made for him. At an early age he was sent to school to learn the three R's and, a little later, French and English. In order that he might acquire a perfect knowledge of the theory, as well as the practice of music, he was early set to study mathematics in all its branches, algebra, conic sections, infinitesimal analysis, and the rest. In the army from his 15th to his 20th year he had an opportunity for improving his knowledge of music, and also for increasing his acquaintance with French. Seeing his pupil's interest, his French teacher did not confine instruction to the grammar and vocables only, but encouraged the taste he found for the study of philosophy, especially logic, ethics, and metaphysics, and these subjects became Herschel's favorite pursuits.

3. School standing and progress. At school Herschel's splendid talents early displayed themselves, and the teacher soon confessed that the pupil had got beyond his master. The boy readily learned every task assigned, and soon arrived at such a degree of perfection, especially in arithmetic, that the head of the school made use of him as an assistant in instruction to hear the younger boys say their lessons, and to examine their arithmetical calculations. Although William was four years younger than his brother Jacob, when the two brothers had lessons in French, the younger mastered the language in half the time required by the elder.

4. Friends and associates. (Teachers and members of the family are the only associates mentioned.)

5. Reading. (No specific record.)

6. Production and achievement. At the age of 14 Herschel was an excellent performer on the oboe and violin, and at 14½ he became oboist in the regiment band, a position which he held until he was 19. His talent in playing both instruments was marked; he won expressions of approval when playing before his general, and at 16 he was frequently introduced as a solo performer and assistant in the court orchestra. Herschel had a gift of manual dexterity, and with his father frequently contrived self-made mathematical instruments such as a "neatly turned four-inch globe upon which he had engraved the equator and ecliptic."

7. Evidences of precocity. (See II 2, 3, and 6.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* When William was 17 his regiment received orders to proceed to England, and he, with his father and brother, who were members of the same military band, accompanied their division. On his return to the Continent a year later, the Seven Years' War was raging, and soon young Herschel's health

began to suffer from long and hard marches. In order to escape conscription he was sent back, at 19, to England with his brother Jacob. Both boys obtained work in music, and the next year William was appointed bandmaster to the Durham Militia. Within two years he wrote six symphonies. At 23½ he became manager of concerts at Leeds; and before he was 24 he had acquired a recognized position as a teacher of music, beside winning praise for his compositions and deriving pleasure from his private study of Italian, Latin, and Greek. After a short visit at home he returned to England, aged 25½, and a little later, at 27, was appointed church organist in Halifax.

AII IQ 140 (Rel. coeff. of data, .53)

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GEORGE FREDERICK HANDEL (1685–1759)

A Celebrated German Composer

AI IQ 145 AII IQ 155

I. *Family standing.* Handel's father "sprang from that old bourgeoisie stock of the 17th century, which was such excellent soil for genius and for faith." Originally a barber, the elder Handel later became a surgeon and, through the exercise of his profession, the trusted personal adviser of the Duke of Saxony. Two traits were particularly conspicuous in him, affability and a religious attachment to duty. The mother, who belonged to a clerical family, was pious and gentle and, like her husband, a wholesome, upright character.

II. *Development to age 17.*

1. Interests. George's "earliest delight was a mimic orchestra of toy drums and trumpets, horns and flutes, and jews'-harps." The father, who had determined to educate his son for the law, bore patiently with this interest at first, but, finding it was rapidly developing into a passion, he forbade his son to practice or listen to music. But George (aged 5 or 6) contrived, with the aid of a relative, to smuggle a clavichord to the garret, where he would secretly play after the family had gone to sleep.

2. Education. Handel was first sent to school at the age of 5 or 6. At 7 he received musical instruction from Zachow, the organist of the Liebfrauenkirche, but he continued his school work as before. The boy is said to have passed the years from 12 to 17 at the Gym-

nasium, and to have received, during this period, counsel if not precisely instruction from the learned Zachow.

3. School standing and progress. George's organ teacher believed in hard work: as he required his pupil (aged 10) to produce a church cantata every week, it is not surprising that Handel later admitted that he worked "like a devil" in those days. Before he was 17 he was sufficiently advanced to act often as Zachow's assistant.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. A set of trios for two oboes and bass, discovered years after the time of their production, were recognized by Handel as his work composed at the age of 10 years. "Even Mozart wrote nothing at that age," writes a critic, "that can be compared with them for freshness of melody and maturity of musicianship if they are the trios printed in the Handel Gesellschaft edition." "Those years of hard work gave Handel all the learning his master could impart, as the latter himself confessed." When he was about 11 years of age George was taken by his father to Berlin, and introduced to the court of the Elector. "The bonds of etiquette dissolved in [the boy's] presence, and the courtiers vied with each other in singing the praises of the wonderful child whose performance upon harpsichord and organ put to shame the grey-haired professors of music."

7. Evidences of precocity. On a visit with his father to a relative employed in the household of Duke Johann Adolf, the boy (aged 11) by his amazing musical precocity, so won the hearts of the Duke's musicians and of the Duke himself, that the whole court conspired to persuade the elder Handel, although without avail, to allow his son to devote himself to a musical career. A second triumph in Berlin, before young Handel reached his 13th year, inspired the elector to offer to complete the boy's education in Italy, and on his return to give him a suitable position at Berlin; but this offer was declined by the boy's father. (See also II 1 and 6.)

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Handel matriculated at the University of Halle at the age of 17, but soon after, when he accepted an appointment as organist at the Schlosskirche, his duties threatened to interfere seriously with his legal studies. Within a year he went again to Berlin, and there he met and received encouragement from young Johann Mattheson, at that time an influential member of musical circles in the capital. *Almira,* produced when Handel was 20, lifted the young composer to the front ranks. His first opera ran successfully for six weeks, and was then replaced by a second, *Nero.* Between 21 and 25, Handel spent some time in Italy where he produced two operas, two oratorios, and several choral and solo cantatas. Before he was 26 he was offered the post of Capellmeister to the elector of Hanover, which he accepted on the condition that he might first visit England.

AII IQ 155 (Rel. coeff. of data, .60)

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FRIEDRICH WILHELM VON HUMBOLDT (1767–1835)

A German Philosopher and Author

AI IQ 145 AII IQ 165

I. *Family standing.* (See Alexander von Humboldt, his brother, p. 472 ff.)

II. *Development to age 17.*

1. Interests. The Humboldt family lived in the winter in their Berlin town house, in the midst of court life, and in the summer, surrounded by country atmosphere, on the beautiful estate of Tegel. "From his earliest years Wilhelm could hardly repress the desire to see and know as much as possible about everything that surrounded him and was not content until every idea that presented itself before him was worked out in his own mind and thoroughly appropriated." For the most part his interests were intellectual, literary, and artistic; and it is apparently a curious contradiction to his other tastes that music was intolerable to him.

2. Education. Wilhelm and his brother Alexander received instruction from very capable private tutors who later became distinguished in various fields. Campe, the well known writer of children's books, taught the 3-year-old Wilhelm to read and write, and within the following year instructed him in history and geography as well. From his 5th to his 11th year Wilhelm had two tutors, Koblanck, later a preacher of high standing in Berlin, and Clüsener, afterward councillor in the little dukedom of Sonnenburg. During the next ten years Kunth directed the Humboldt brothers' education. He was a young man gifted with a character of remarkable excellence, who had received a liberal education and acquired singularly courtly manners, and who later attained the dignity of "actual privy councillor." Although Kunth did not himself give the boys formal instruction, his talks with them on citizenship, philanthropy, etc., had a formative influence. When Wilhelm was 12 his father died. The mother then took charge of her sons' education, sparing no expense in securing the services of the best masters, and relying upon trained judgment in the matter of their selection. The principal intellectual nourishment of these years, which was in Latin, Greek, and mathematics, was provided by Professor Fischer, a pedagogue whose mathematical school books continued in use long after his death. Löffler, a man of advanced thought, and later a famous professor and councillor, expounded the principles of Greek and Latin. Lectures by Professor Engel, author of *Popular Philosophy*, introduced the boys to the wide field of science.

3. School standing and progress. One day the noted physician Heim explained to the young Humboldts the twenty-four classes of the Linnaean system of botany, and Wilhelm (aged 14) "readily comprehended, retaining the names without difficulty." Professor Fischer derived unusual pleasure from the hours passed in giving instruction to the Humboldt boys, "cheered by the bright hopes, later so happily fulfilled." To Professor Engel is attributed the development in Wilhelm of that moderate, practical, rational, and humane philosophy which distinguished his later writings.

4. Friends and associates. The boy's father often entertained distinguished guests in his home; not infrequently the heir to the throne visited at the Humboldt country seat, and Goethe was, on one occasion, when Wilhelm was 11 years old, a welcome guest at Tegel. Wilhelm and his brother Alexander, two years his junior, spent their childhood and early youth in inseparable companionship, and although very different in temperament they remained always the best of friends. Wilhelm for all his learning was "anything but a pedant"; he was ever ready to raise a laugh, "and was made an idol of by all the house."

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* In his 19th year, Wilhelm attended a series of lectures upon political economy given by Dohm, an official in the State Department of Trade and Commerce, and followed the discussion on law and jurisprudence by Klein, Counsellor of the Supreme Court of Judicature and a compiler of the New Code of Law in Prussia. In modern languages he, with his brother, was instructed by Professor LeBauld de Nans, tutor to the royal family and editor of a French paper in Berlin. Through friendly intercourse with Moses Mendelssohn, both youths gained valuable lessons in philanthropy and philosophy. David Friedländer directed their minds to correct views on important points in practical philosophy, views that were ahead of the times. As youths of 16 and 18 the Humboldt brothers were received into a select group of intellectuals, disciples of Lessing and Kant, and Wilhelm's first paper, published when its author was 19, gives evidence of the influence of this association. Both brothers attended lectures on physics by the Jewish physician Marcus Herz, whose home was a center of culture.

When Wilhelm was 20, he and Alexander entered the University of Frankfort-on-the-Oder, where, however, they attended few lectures, receiving most of their instruction under private tutors. At this time Wilhelm was engaged in reviewing for Engel the entire philosophic and scientific literature of Germany. At the age of 21 Wilhelm removed to the University of Göttingen, where he devoted himself to the study of archaeology and Kantian philosophy. He became an ardent member of a Romantic group, whom he met in the house of the celebrated philologist Heyne. He made several journeys,

on the Rhine, to Paris, and to Switzerland. He read and studied and made new friendships, chief among them those with Schiller and Wolf. After brief but, to him, distasteful service in the court of Berlin, and following his marriage to Caroline von Dacheroden, a woman of a high order of intellect and great charm, he retired from public life before he was 25 to devote himself entirely to study. One of his most interesting historical essays dates from the first year of this intensive literary activity.

AII IQ 165 (Rel. coeff. of data, .75)

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THOMAS JEFFERSON (1743–1826)

The Third President of the United States

AI IQ 145 AII IQ 150

I. *Family standing.* The American representatives of the Welsh family of Jefferson numbered several members of the Virginia House of Burgesses. Thomas Jefferson's father was a county surveyor, one of the three original justices of the peace, a colonel, and also a member of the House of Burgesses. He was a man of strong mind and sound judgment, eager for education. He was at one time appointed with the professor of mathematics of William and Mary College to continue the boundary line between Virginia and North Carolina, and to make the first map of the State of Virginia. The mother's family included warriors, churchmen, statesmen, and eminent scholars; the maternal grandfather was a colonial gentleman, a tobacco lord, wealthy, intelligent, generous, good natured, well respected. The mother herself, an admirable housekeeper, was an agreeable woman of clear and strong understanding, possessing the usual amount of education for a woman of her day and class.

II. *Development to age 17.*

1. Interests. Thomas was fond of hunting, riding, and other outdoor sports followed on the old Virginia estates. But he was no less addicted to mental exercise: his thirst for knowledge was insatiable; and he seized eagerly all means for satisfying it.

2. Education. From the age of 5 until he was 9 Jefferson attended the English school. Music lessons, begun early in this period, were continued about 12 years. From his 10th to his 15th year the boy attended the Latin school, learning there the rudiments of Latin, Greek, and French and at the same time continuing his practice on the violin three hours each day. At the age of 14 and, after the death

of his father, Jefferson entered the Latin school of Mr. Maury; here the classical languages were the only studies taught.

3. School standing and progress. Jefferson was noted at Maury's school for scholarship, industry, and shyness. If a holiday were desired, it was not he who could be induced to ask it, though he urged others to the venture; and, if the request were granted, he would first of all withdraw from the noisy crowd of his school fellows, learn his next day's lesson and then, rejoining his comrades, begin the day's pleasure.

4. Friends and associates. (No specific record.)

5. Reading. It is reported that by the time he was 15, Jefferson had read all the books in his father's little library, including the works of Addison, Swift, Pope, and Shakespeare. "From the first time, when, as a boy, he had turned off wearied from play and first found pleasure in books, he had never sat down in idleness."

6. Production and achievement. (No specific record.)

7. Evidences of precocity. Jefferson's earliest recollections were of his 2nd or 3rd year. At the age of 5 he knew the Lord's Prayer; and this he employed on at least one occasion in the hope of achieving a special act of Providence.

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 17 Thomas Jefferson entered the advanced class at the William and Mary College, and throughout his course he applied himself closely to his studies, maintaining his earlier interest in languages, and becoming deeply attracted to mathematics. At 19 he started legal study in preparation for practice and acquired "unrivalled facility, neatness and order in business." While he continued in this main occupation four years, he did not neglect his athletic or literary accomplishments. He completed his self-directed course at 23, with a capacity for deep, thorough, and prolonged study in all branches of knowledge. At 24 he was received at the bar, and thanks to his erudition and the clarity of his ideas and principles, he made an immediate success of his profession.

AII IQ 150 (Rel. coeff. of data, .75)

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AUGUST FRIEDRICH FERDINAND VON KOTZEBUE (1761–1819)

A German Dramatist

AI IQ 145 AII IQ 150

I. *Family standing.* The Kotzebues were natives of Brunswick. The father, a councillor of legation, went to Weimar as secretary of the

Cabinet of the Duchess Anna Amalia. August Friedrich said that he owed to his mother his intellectual gifts and "the happiest days of his life"; for, although the daughter of a middle class Brunswick family, she "possessed a refined taste, with correct feelings, and a mind well cultivated by reading."

II. *Development to age 17.*

1. Interests. Young August early developed a taste for reading, and even before his 5th or 6th year, he was more drawn to his books than to his rocking-horse. He showed an early susceptibility to love, and at 7 wrote a passionate love-letter to a lady many years his senior. A period of pious religious enthusiasm occurred a little later, during which little August took much trouble to make sufficient variations in his prayers, so that God should not be offended at "being put off with the same things every day"; this enthusiasm was, however, extinguished by attendance at church before the lad was 10 or 11. He began to doubt God's omnipotence, when told that He "could not create another being greater and more powerful than Himself."

When some strolling players came to Weimar and produced Klopstock's *Death of Adam,* the boy was taken to see the performance by his uncle, the distinguished Musaeus. Although he was then so small that he had to stand on the bench to see over the heads of the others, he was "stunned with delight" and wanted some new mode of expression coined to make his feelings articulate. Not long after this occasion a regular theater was instituted at Weimar, whose stage company, one of the best in Germany, included the "immortal" Eckhof. Young Kotzebue attended whenever he could obtain permission, and was perhaps the most attentive spectator. Lessing's *Emilia Galotti,* which he could repeat by heart, without ever having seen the book, and Engel's *Grateful Son* became favorite plays, which August persuaded his companions to perform, he himself taking alternately every rôle. Pantomimic ballets, performed in superb style, were a great delight to him; and these too were imitated at home in a little puppet theater. During college days at Jena, he began to take part in amateur theatricals and, in these, women's parts were frequently allotted to him on account of his youth. From his 7th year he was fond of writing verses, and continued through his college days "to forge rhymes."

As a boy Kotzebue was "an ardent sportsman"; he tells us that he had Goethe's permission to make snares for birds in the poet's yard. At Jena, where he joined in the usual student activities, he fought his duels with a bravado that is said to have distinguished him from the rest.

2. Education. His father died when August was 2, and thereafter his mother devoted herself to the education of her children. She engaged as tutors, young divines, but these proved to be mediocre teachers who insisted on long hours of drudging at such works as Langden's *Colloquies* and Luther's *Catechisms,* thus merely "teaching the parrot to prate." Frau Kotzebue, herself, taught the child to feel, and early instilled in him a taste for reading. He began to

learn French in his childhood; and Madame Louvel, a French governess, introduced him to Madame de Beaumont's works.

August entered the Gymnasium at Weimar in the third class, and there began to learn Hebrew. In the second class he, with the others, began to learn the art of making Latin verses. Under the tutorship of his uncle Musaeus, at this time a special instructor in the Gymnasium, he was exercised in letter writing; and once a week in poetry, in which composition was voluntary. In the highest class the scholar Heinse inspired his pupils with a taste for the Latin language, reading Terence aloud in a masterly manner; but the logic learned from an old scholastic and the dull, dry *Universal History* gave the boys "an inveterate nausea."

At 16 Kotzebue became a student at Jena. Here Weideberg, later professor at Helmstadt, was an excellent teacher of Horace; the "worthy old Boulet" was an admirable French instructor; and Signor Valenti taught Kotzebue Italian.

3. School standing and progress. August never pursued his studies with greater assiduity, nor made more rapid progress in them than when he was inspired by the hope of having his diligence rewarded with permission to attend the theatre in the evening. When this magnetic influence was lost through the burning of the theatre, Kotzebue sank for a while into extreme apathy and indolence. If his lessons were uninteresting, he stayed away to plan plays; or he slyly read romances beneath his cloak.

At Jena he acquired great proficiency in French, and as he progressed in his classical studies, the high respect for the Latin tongue that he had gained from Heinse was increased.

4. Friends and associates. Musaeus, the well-known professor and writer, Kotzebue's uncle by marriage, not only helped and inspired the boy in school, but out of school-hours gave him valuable lessons in taste and morals, so that the boy came insensibly to imitate his worthy mentor's virtues. Fortunately, Musaeus knew how to check his nephew's conceit as well as encourage his genius, although it is doubtful whether he was as successful in the former endeavor as in the latter. Goethe was a frequent visitor at the Kotzebue house, and was remembered for his kindness in talking to the lad and exhorting him to diligence in his studies. Every word he spoke made a deep impression. Another poet, Klinger, whose honesty and ardor of temper charmed the boy irresistibly, was also a frequent guest.

5. Reading. Kotzebue used to run away from his playfellows to read undisturbed by the stable door, until the sun had set and he could no longer see. The first book that impressed him was a collection of tales from various languages, called *Evening Hours,* the favorite tale being *Romeo and Juliet.* This volume was read over and over again. Don Quixote and Sancho Panza became his companions, and remained his favorites until they were replaced in his affections by Robinson Crusoe. August was fond of *Æsop's Fables,* and so delighted with the writings of Gleim, Uz, and Hagedorn that very early they became objects of his imitation. When at the age of

6 he made his first attempt at writing poetry, the images employed were ransacked from all the poets with whom he was then familiar. Upon reading Goethe's *Werther,* the boy was affected with overpowering emotions and conceived a most enthusiastic attachment to the author.

6. Production and achievement. Kotzebue had made his first attempt at writing poetry toward the close of his 6th or early in his 7th year. Two of the lines particularly delighted him because "they skipped so prettily": *Es singet die steigenden Lerche, Es hupfen die Schäfgen am Berge"; for* days he puzzled to make all the lines dance with equal agility, but in vain. Soon he wrote a comedy, filling a whole octavo page, on the subject of the "Milk-Maid and the Two Huntsmen." A love-letter (see II 1), written when he was 7, contained expressions and sentiments far above his years. Some time later an elegy upon the death of a lovely girl was written with such remarkable feeling that it won immediate success, and friends suggested that it ought to be printed; thereupon Kotzebue experienced a wave of vanity that supplanted all other feeling, even sorrow for the girl. When the "theatrical mania" came upon him, he influenced his followers to act out every new drama that fell in his way. For the puppets in the pantomimic ballets, he made a little theater, first of wax, then of paper, and finally of wood, and set up wires to make the puppets dance. At the Weimar school and while in the second class, he wrote a five-act drama on Catiline's conspiracy, and a comedy called "All's Well that Ends Well," which Goethe asked to read. About the same time he took a small part in Goethe's *Brethren,* performed at a private theater in Weimar. While a student at Jena he wrote some verses upon the drowning of a fellow-student, which were printed and set to music; and this success made him more devoted to the muses than ever.

7. Evidences of precocity. (See II 1 and 6.) As a lad Kotzebue showed clear evidence of unusual talents; unfortunately his precocity was equalled by his vanity and impudence, which the training of his gifted mother and the poet Musaeus did not suffice to check.

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 17 Kotzebue went to Duisburg University for a year, and immediately on his arrival instituted a private student theater. Upon the invitation of the convent fathers, plays were given in the convent cloister, the first of these being *The Rivals.* At Duisburg, August continued to write without "emitting one spark of originality," and a comedy and a romance confidently sent to a publisher were returned. Returning to Jena, the youth applied himself to the study of law, but continued to devote his leisure to the private theater and to composition: he was more successful now; his plays were acted and a small volume of his poems was published. With some of his friends he instituted a poetical club, at whose meetings original poems were read and discussed. Kotzebue was elected to the student fraternity Germania, a high honor.

Before he was 20 he left Jena and, returning to Weimar, was admitted as an advocate. *A History in Fragments* and a collection of tales were brought out during the summer. Leaving Weimar suddenly, Kotzebue now served for two years (aged 20 to 22) as secretary to the governor-general at St. Petersburg. During this period a five-act tragedy, *Demetrius, Czar of Moscow,* was received with applause, and a comedy *The Nun and the Chambermaid* was well played and pleased the public. From his 23rd to his 25th year Kotzebue held the office of assessor to the high court of appeal in Reval. Here he again established a private theater, which opened successfully with a play of his own, in which he took a part. At the age of 24 he was ennobled and appointed president of the magistracy of the province of Esthonia. During the year he wrote a novel which was popular; and for some months he edited a monthly journal, *For the Mind and Heart.* At 26 a serious illness threatened his life, but in an ensuing state of melancholy he wrote one of his two best known works, *Menschenhass und Reue.*

AII IQ 150 (Rel. coeff. of data, .60)

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PIERRE SIMON LAPLACE (1749–1827)

A Celebrated French Astronomer and Mathematician

AI IQ 145 AII IQ 170

I. *Family standing.* Laplace was the son of a poor laborer of Lower Normandy. (Because of the scientist's own reticence on the subject no information regarding his family and ancestry was preserved.)

II. *Development to age 17.*

1. Interests. (See II 3.)

2. Education. Laplace owed his early education to the patronage of some persons of importance whose interest in him was excited by his early precocity, and who placed him in the College of Caen. From this institution he advanced to the military school of Beaumont.

3. School standing and progress. It was at Beaumont that Laplace first gave evidence of his great mathematical powers. Previously he had been remarkable chiefly for a wonderful memory and extraordinary acuteness in debating points of theology.

4. Friends and associates. (No record.)

5. Reading. (No specific record. But see II 3.)

6. Production and achievement. After he had completed his course as a student at Beaumont, he remained in the school as

assistant professor of mathematics, completing his mastery of mathematical analysis and its application to dynamics and astronomy.

7. Evidences of precocity. (See II 2, 3, and 6.)

AI IQ 145 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* At the age of 18 Laplace journeyed to Paris, seeking there greater scope for his mathematical powers than a province afforded. After an initial rebuff he obtained an enthusiastic response from D'Alembert, who appointed him professor of mathematics at the École Militaire of Paris. At 23 the young scientist communicated two papers of great value to the Academy, and the following year applied his mastery of analysis to the study of planetary motion with the result that he made "the most important advance on physical astronomy since the time of Newton." From the age of 24 Laplace continued, for 14 years, investigations which culminated when he was 38 in discoveries that finally determined the stability of the solar system.

AII IQ 170 (Rel. coeff. of data, .60)

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METASTASIO (PIETRO ANTONIO DOMENICA BONAVENTURA TRAPASSI) (1698–1782)

A Noted Italian Poet

AI IQ 145 AII IQ 145

I. *Family standing.* Felice Trapassi, the poet's father, came from an honorable family of Assisi. He had served as a private in the Pope's Guard, but after his marriage he went into trade, setting up a little drug shop. There is no record of the mother or her family.

II. *Development to age 17.*

1. Interests. Pietro, when no more than a child, was fond of scribbling verses; on occasion, also, he would hold a crowd attentive in the streets of Rome, while he recited impromptu rhymes on a given subject.

2. Education. Gravina, dictator of the Arcadian Academy, who adopted the talented boy when he was about 11 years old, decided to educate him to be a jurist. He made him learn Latin and Greek and begin the study of law, but according to the academician's plan, the boy was also permitted to exercise poetry, although only as an elegant pastime. At 16 Pietro took minor orders in the church.

3. School standing and progress. Pietro worked hard enough at his studies to injure his health.

4. Friends and associates. As Gravina's adopted son he associated with well-educated boys; handsome, bright, and winning, he charmed everyone.

5. Reading. (No record.)

6. Production and achievement. At the age of 11 young Trapassi was taken by Gravina to literary assemblies in the houses of nobles and prelates, and there on occasion he would improvise as many as eighty stanzas in a single evening. At 12 he translated the *Iliad* into octave stanzas, and two years later composed a tragedy in the manner of Seneca, which was published.

7. Evidences of precocity. (See II 1 and 6.)

AI IQ 145 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* Upon the death of Gravina, Metastasio (aged 20) inherited a considerable estate. Tired now of the drudgery of study, he determined to obtain some employment about the Pontifical Court, and while waiting for it, to amuse himself. He failed to secure the ecclesiastical appointment, and at the end of two years of fast living his money was gone and with it his friends. Although he did not like hard work, nor the law, he was afraid of poverty, and so he determined to work as clerk to a distinguished Neapolitan lawyer. At 24 he secretly composed a serenata, *Gli orti esperidi,* for the celebration of the birthday of the Empress. The authorship was discovered by the famous prima donna, La Romanina, who in consequence adopted Pietro, taking him and his family into her house. He now had the opportunity of meeting the greatest composers of the day, and of pursuing his studies in the art of singing and of composition. At 25 he wrote the text of an opera on Dido, *Didone Abbandonata,* the success of which was prodigious.

AII IQ 145 (Rel. coeff. of data, .53)

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MICHELANGELO BUONARROTI (1475[?]–1564)

A Famous Italian Sculptor, Painter, Architect, and Poet

AI IQ 145 AII IQ 160

I. *Family standing.* The Buonarroti family belonged to the respectable burgher nobility. Michelangelo's father was an impractical, easy-going individual of no profession. Nothing is recorded of the mother or her family.

II. *Development to age 17.*

1. Interests. At school Michelangelo devoted most of his time to drawing, a pursuit not included in the curriculum and which his father tried to discourage, as he did not wish a painter in the family. Michelangelo early sought the acquaintance of artists, and took every opportunity to converse with them. From his 14th to his 16th year, during the period of Lorenzo de Medici's patronage, the youth devoted most of his time to the study and practice of drawing, paint-

ing, and sculpture; he also cultivated the society of distinguished contemporaries as they met at Lorenzo's table, and through them he was introduced to the great men of the past in literature. It is characteristic of Michelangelo that, living among parasites, he never lost his independence of character.

2. Education. Of Michelangelo's earliest years nothing is recorded. At the age of 13 he was sent to school in Florence where he learned to read and write and was introduced to the elements of Latin. During the same year his reluctant father was finally persuaded to apprentice the gifted boy to Ghirlandaio and Curado, and from them he learned the principles of his art in a sound and simple manner, developing at the same time extraordinary skill of hand. At 14 he was chosen, with Granacci, from among the art students to attend the new Art School of Lorenzo de Medici, then under the direction of the excellent teacher, Bertoldo, who instructed his pupils in drawing, painting, and sculpture.

3. School standing and progress. (See II 2 and 5.) Apparently Michelangelo attended the common school for less than one year.

4. Friends and associates. At the age of 12 the boy found a congenial friend in Granacci (see II 2), two years his junior, who was already a pupil of Ghirlandaio and who lent Michelangelo his teacher's drawings. At the age of 13 he was associated with Ghirlandaio and Curado, and from 14 to 19 with the Medici and their brilliant artistic circle. Among the latter he especially attracted the attention of the poet Poliziano, who often conversed with him and who took special care also to provide him with suitable instruction.

5. Reading. At 14 or 15 the young artist began to read Dante and other Italian poets, and the Bible also; and these works continued to engage his attention throughout his life.

6. Production and achievement. At the age of 13 Michelangelo was so proficient in drawing that he received a salary, although he was then in the first year of his apprenticeship. His passion for his art was so strong that every available space became a sketch surface. It is written that he drew so well at this time that he "caused wonder to all that saw it," and envy to the less generous.

The young artist's first recorded work, a free colored copy of the "Temptation of St. Anthony" by Schöngauer, belongs to his 14th year. Other drawings executed the same year made his master exclaim, "This one knows more about it than I"; but many years later Michelangelo modestly stated that he had himself "known more of art in that day than now." He made so clever a counterfeit of a borrowed drawing that he was able to return it to the owner of the original without detection. In his 15th or 16th year Michelangelo carved the mask of a Faun, his second recorded work, and his first known work in marble; and he worked on Masaccio's frescoes. Four works are known to belong to the period from his 15th to his 19th year. The "Battle of the Centaurs," a really characteristic study, was executed when the sculptor was no more than 16 or 17.

7. Evidences of precocity. (See II 2 and 6.)

AI IQ 145 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* The young sculptor lived in the Medici palace until he was 19, when he fled to Bologna, having foreseen, after the death of Lorenzo, the revolt against the weak and foolish rule of the younger Medici. At Bologna he was befriended by Senator Aldovrandi, who took the youth into his house and there shared with him a literary feast, reading aloud the works of Dante, Petrarch, and Boccaccio. By the time Michelangelo was 20, peace had been restored in Florence, largely through the influence of Savonarola. Another Lorenzo de Medici now favored the young sculptor with his patronage, and commissioned him to execute a statue of St. John. This work had been preceded by a wooden crucifix carved when Michelangelo was 17, and two small statues of perhaps his 19th year. The sculptor's next statue was a Cupid which was sold, but without Michelangelo's knowledge, as an antique to a cardinal who prided himself on his capacity as a critic. At the age of 21 the sculptor arrived in Rome bearing a letter of introduction to this cardinal who, in spite of the deception that had been played upon him, received the young man cordially and soon learned to value his judgment. In the following year, although still a poverty-stricken artist, the youth gave financial assistance to his father who had contracted a heavy debt. At the age of 23 Michelangelo executed for Senor Galli a very fine Bacchus. A little later the "Pieta" was begun and when, in the following year, Michelangelo completed this marvelous work, he had indeed "accomplished what no other artist then living could have done." It was probably during his 25th or 26th year that Michelangelo finished the "Madonna of Bruges," which holds in sculpture the same position that the "Sistine Madonna" holds in painting. At 25, yielding to the reiterated requests of his father, the young man returned to Florence.

AII IQ 160 (Rel. coeff. of data, .43)

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JOHN MILTON (1608–1674)

A Celebrated English Poet

AI IQ 145 AII IQ 170

I. *Family standing.* Milton's paternal ancestors belonged to the gentry. The grandfather, a yeoman, was also a church warden who disinherited his son John, the poet's father, a young man of character and education, for becoming a Protestant; the latter turned scrivener, prospered rapidly, and had in the end "a plentiful estate." The elder John Milton was fond of literature and of music; and his

musical compositions were published during his lifetime among those of twenty-one foremost English composers of the day. The mother, a tailor's daughter, and known for her charities, was "a most excellent mother."

II. *Development to age 17.*

1. Interests. From his childhood Milton was a poet; at 10 he was already a serious little Puritan, and he was noted two years later for his "impetuosity in learning."

2. Education. John Milton was the pride and care of his parents, who destined him for the study of humane letters. His first formal instruction was received before he was 9 years old from a private tutor, a university man, who grounded him well in Latin, introduced him also to Greek and "at the same time awoke in him a feeling for poetry and set him upon the making of English and Latin verses." This instruction was continued until, at the age of 11, John entered St. Paul's School where he remained five years. Until he was 13, the instruction of private tutors was continued in addition to regular scholastic activities at St. Paul's. In school and out Milton appears to have learned not only Latin and Greek, but also French, Italian, and some Hebrew. At 16 he left St. Paul's and entered Cambridge as a Lesser Pensioner. This was not an unusual age for entrance, for boys frequently entered at 15, or even at 14, as did Milton's friend Diodati. The daily college routine included in those days religious exercises, lectures and examinations in Latin, Greek, logic, mathematics, philosophy, etc., and public disputation.

3. School standing and progress. At St. Paul's, Milton (aged 11 to 16) took passionately to studying; he seldom left his lessons for bed until midnight, a practice which produced frequent headaches and was the first cause of injury to his eyes. No definite record is preserved of his standing in his classes at school, or of his progress during his first year at the university.

4. Friends and associates. Gill, the clever son of the school director, and a writer of graceful Latin and Greek verse, was Milton's first literary mentor and critic. Charles Diodati, a gifted youth, far advanced in school, was his most intimate and devoted associate in both school and college. His first tutor, Young, remained a life-long friend.

5. Reading. From the age of 11 to 16 Milton read much English literature, finding congenial matter in such works as Spenser's *Faerie Queen* and Sylvester's translation of Du Bartas. Rhymes, images, and turns of expression in his verses written at 15 suggest that Milton was then familiar with a wide range of poetical writers, for they recall Sylvester, Spenser, Drummond, Drayton, Chaucer, Fairfax, and Buchanan.

6. Production and achievement. Milton's first extant compositions, paraphrases of two psalms, date from his 16th year. Of these Masson says: "Apart from the imitative faculty shown in the verses they do have some poetic merit," while Dr. Johnson's characteristic criticism is as follows, "They raise no great expectations; they

would in any numerous school have obtained praise, but not excited wonder." A letter, written from Cambridge when John was 16, gives happy expression to devoted affection for his friend and also shows skill in manipulating a formal Latin style.

7. Evidences of precocity. Milton appears to have been regarded by his parents as a child of unusual promise. (See also II 5 and 6.)

AI IQ 145 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Milton attended Cambridge as an undergraduate from the age of 16 to 20, but the years were not joyful, for he found his companions on the whole uncongenial. Several poems in Latin and English were written at this time and some noteworthy Latin orations, but the poet's future greatness was not yet anticipated. Continuing in residence until he was 23, he received his Master's degree at the end of that period, after studying so intently that he had seriously aggravated the weakness that was to become his affliction. Elegies and poems appeared in Latin and English, including the *Ode on the Morning of Christ's Nativity.* It is probable that his relations with his colleagues became more happy as his reputation began to spread. Indeed, during the last years at the university and as the Fellows of his own college recognized "the extraordinary wit and reading he had shown in his performance to attain his degree" he was recognized as without an equal, and came to be admired and loved by all.

At the age of 24 John Milton returned to his father's home and there with abundant leisure he studied not only the classics, but music and mathematics also, and wrote, between his 24th and 26th years, beside many other poems, *L'Allegro, Il Penseroso,* and *Comus.*

AII IQ 170 (Rel. coeff. of data, .82)

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DANIEL O'CONNELL (1775–1847)

An Irish Patriot and Orator

AI IQ 145 AII IQ 145

I. *Family standing.* The O'Connells were an old and prominent family of Ireland. Daniel's paternal grandmother, related to Donal Mahony, "the terrible Papist that ruled South Kerry with his four thousand followers," was a woman of great talent, and reckoned among her gifts that of song; from her, Daniel is said to have inherited much of his energy and eloquence. Daniel's father was a third son and one of twenty-two children. His mother, a woman of a high order of intellect, came of an old and propertied Catholic family.

II. *Development to age 17.*

1. Interests. As early as the age of 9 O'Connell preferred reading to play; he "liked ballads above all things when a boy." (See also II 7.) His devotion to his native country was early apparent: when no more than 15 he told a Frenchman, who was surprised at his failure to object to violent abuse of England, that England was not his country and that he was therefore not offended at the abuse; he said further that as an Irishman, he had as little reason to love England as a Frenchman had, perhaps less. O'Connell's interests were not literary or intellectual. He appears to have inspired among his fellow students a wholesome dread of his prowess as a pugilist.

2. Education. At the age of 4 Daniel learned his alphabet in an hour from an itinerant "hedge-school master." The next reference to his progress is the statement that he was sent by his uncle, at the age of 13, to the Reverend Mr. Herringtons' school near Cork. Being destined for the law by this uncle, who was also his guardian, he was sent abroad in his 16th year. He first spent a short time at Louvain, then entered the English college at St. Omer, where the curriculum included the study of Latin and Greek authors, French, English, and geography. O'Connell reports reading Mignot's harangues, Cicero and Caesar (at sight), Demosthenes, Homer, Xenophon's *Anabasis,* and Dagaso's speeches. When just 17, he entered the English college at Douay.

3. School standing and progress. Because he was so attentive O'Connell was the only boy not beaten at school. Always remarkably quick and persevering, he could not brook the idea of being inferior to others; and in consequence of his ambitious spirit, during the short time he was at Louvain he rose to a high place in a class of one hundred and twenty students. At St. Omer's he reports being "second in Latin, Greek, and English, and eleventh in French."

4. Friends and associates. O'Connell's two close-pressing rivals at St. Omer's were Walsh, afterward right reverend doctor and bishop of the Midland district of England, and Christopher Fagan, later a general in the East India Company's service and judge-advocate of the Indian forces.

5. Reading. The first book he ever read was *Captain Cook's Voyage Round the World.* (See II 2 for books read as a part of his school course.)

6. Production and achievement. At the age of 10 O'Connell composed a drama on the fortunes of the House of Stuart, and while at St. Omer's he wrote a very creditable essay upon the systems of education pursued in England and France respectively.

7. Evidences of precocity. Until after his 3rd birthday, Daniel was brought up by a herdsman's wife. The following anecdote is preserved from this early period. Just before he left the cabin a wedding took place there. Being a "precocious and observant child," Daniel noticed at home how frequently parties assembled under his father's hospitable roof and asked, "Is there a wedding here every night?"

From the age of 7, or perhaps even earlier, the boy felt a presentiment that he would distinguish himself; at 9 he remarked on one occasion, "I'll make a stir in the world yet." He always had one object and that was to do something for Ireland, for he "hated Saxon domination."

AI IQ 145 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Because of the state of affairs in France in 1793, Daniel and his brother left hastily, wearing the despised tricolor cockade for protection against the Republicans, and returning to England entered school there. A little later the uncle reported that "Dan is indeed promising in everything that is good and estimable." At the age of 18 O'Connell began the study of law, first entering Lincoln's Inn and a year later Dublin. He read very widely during the following years, and before he was 23 he was called to the bar.

At the age of 19 he had been finally converted from sympathy with Toryism to popular opinions and principles. At 21 he was inspired by a visit to the House of Commons to write these words: "I too will be a member. Young as I am, I should even now not appear contemptible. I will steadfastly and perseveringly attach myself to the real interests of Ireland." At 23, attending a Catholic meeting in Dublin, he made his first political speech. The passing of the Legislative Union act first stirred him up to press forward in politics.

AII IQ 145 (Rel. coeff. of data, .75)

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CHARLES AUGUSTIN SAINTE-BEUVE (1804–1869)

A French Poet and Critic

AI IQ 145 AII IQ 155

I. *Family standing.* Sainte-Beuve's grandfather and great-grandfather were town officials. His father first held minor positions in the Boulogne excise and customs office, and later was promoted to the position of chief controller of the consolidated duties. He was an intelligent man whose library, in the marginal notes which covered many of its volumes, bore evidence of his careful and wide reading. His expressed reflections and judgments show moderate views. Some of his maxims are profound and admirably expressed; they give evidence of the same flexibility of mind, with the same vivacity of phrase, which mark the epigrams of his son. Little is

known of Sainte-Beuve's maternal ancestors beyond the fact that his grandfather was a sailor and his grandmother an Englishwoman. The mother had a practical turn of mind, simple and quiet manners, and a very remarkable accuracy of observation.

II. *Development to age 17.*

1. Interests. When at school in Paris, Sainte-Beuve wrote that he found much consolation in religion; for having at this time no confidential friend to whom he might confide his troubles, he prayed to God, and thus opened a way to dissipate his sorrow. But before he was 17 he had become "entirely emancipated from all religious beliefs."

2. Education. A posthumous and an only child, Sainte-Beuve was brought up by his mother with the utmost care. Although she was a Catholic, she did not hesitate to send her son to M. Blériot's secular school, for there he could enjoy the instruction of a good teacher and humanist, M. Clouet. At the age of 13½, having completed the entire course of study under M. Blériot, including also an extra portion of rhetoric, Sainte-Beuve persuaded his mother to send him to Paris, where he entered the Collège Charlemagne. The next year he reports studying, in Greek, the second book of the *Iliad,* Plutarch's *Life of Cicero,* and the *Gospels,* and in Latin, Sallust's *Jugurthine War,* the *Thoughts* of Cicero, and the third book of the *Æneid.* In his third year one of his teachers was Paul-François Dubois, the modernist founder of the *Globe,* soon to be deprived of his teaching position because of his liberalism. When 16 Sainte-Beuve transferred to the Collège Bourbon, attending, in addition, the Athénée for three hours each evening where he heard lectures, and followed courses in physiology, chemistry, and other sciences.

3. School standing and progress. At the Collège Charlemagne Sainte-Beuve was always first or second, rarely third, in the weekly compositions, and at the end of the year he received the first prize in history. He was very fond of his professor there, and in the opinion of the boy "nobody could teach a class better than he does." At Collège Bourbon he pursued his studies with "his usual application and success." Here he took first prize for Latin verse. Fifty-one of his college themes (in both French and Latin) were later published as models of their kind by one of his former masters. Because of his studious habits and the honors he won in the college, he was treated with special consideration by his patron, M. Landry. When at school in Paris, Sainte-Beuve boarded with this gentleman, sat at his table, and met his particular friends, who "treated him like a large boy or a little man."

4. Friends and associates. The boy's teachers were attached to him and "lavished much attention on him." With two of his schoolmates, whose interests were congenial, he formed close friendships warmly attested by letters.

5. Reading. Sainte-Beuve took an interest in literature apart from his regular school work; among others he expressed enthusiastic admiration for the writings of Casimir Delavigne.

6. Production and achievement. An ode written when he was 16 and entitled "A Young Italian Poet at the Tomb of Tasso" was thought worthy of preservation by his teacher, Dubois.

7. Evidences of precocity. (No further record.)

AI IQ 145 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 18 Sainte-Beuve's reading centered in the French Revolution; he had formulated his ideas of government, rejected the theory of the divine right of kings, and politically was a moderate radical. Having a "decided taste for the study of medicine," he spent the next four years at the Medical School, where, in spite of the fact that he became introspective, morbidly curious, and morose, a lasting advantage was imparted by the discipline of scientific training. Encouraged by his former teacher, the liberalist Dubois, to try his talent for writing without giving up his medical course, he began, at 19, to write geographical sketches and book reviews for the Dubois journal. One, at least, of the reviews shows a singular open-mindedness and such an uncommon grasp of critical principles that its author was chosen to review Hugo's *Odes and Ballads.* These articles brought about a friendship with Victor Hugo, who praised some of his original verses and won him over to that branch of the Romantic School of which he was the head. Friendships with Lamartine and De Musset followed. At 22, finding it easier to make a success of literary work, Sainte-Beuve gave up medicine, and by the age of 23 he was already a learned man and skilled writer. His *Life, Poems, and Thoughts of Joseph Delorme* appeared when he was 24, and the next year his second book of poems, *Consolations,* was published. At this time, and because it paid well, he began writing articles for the *Revue de Paris.*

AII IQ 155 (Rel. coeff. of data, .75)

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DANIEL WEBSTER (1782–1852)

A Famous American Statesman, Orator, and Lawyer

AI IQ 145 AII IQ 150

I. *Family standing.* Webster came of Scottish stock. His grandfather was a farmer and freeholder; his father, a frontiersman who rose to the rank of captain in the French and Indian Wars and became a colonel during the Revolution, was an unlettered man of strong mind, sound common sense, correct judgment, and tenacious memory. From being a farmer and an inn-keeper he became

a legislator and a magistrate. The mother was "a woman of more than ordinary intellect" who possessed "a force of character which was felt throughout the humble circle in which she moved."

II. *Development to age 17.*

1. Interests. At the age of 8 young Webster listened to the political discussions of his father and his father's friends. The boy was not successful in farm work, and in the summer he found haying so "lonesome," that his father sent him back to study with his tutor. At the academy he did not mix much in the sport of the boys, but he wept for joy when his father told him he was to go to college.

2. Education. The father's highest ambition was to educate his children to the full extent of his rather limited means. He sent all of his sons to the town school, but Daniel was given further training, because his physical frailty seemed to preclude a robust occupation. The boy entered his first school at 3 or 4 years of age, and his second about a year later, where he received instruction in reading and writing. He continued to attend school from time to time whenever he could be spared from the farm. When he was 13 years old his father found that the improved family finances made it possible to plan a college education for one son. Daniel was chosen, and accordingly entered, at 14, Phillip's Exeter Academy, then under the headship of the eminent Dr. Abbot. Here he began the study of Latin under a brilliant tutor (younger than himself), and at 15 he received special instruction in preparation for college. Although he had studied Virgil and Cicero with much pleasure, we read that he entered Dartmouth at 15, "miserably prepared both in Latin and Greek."

3. School standing and progress. Webster could not recall a time when he could not read the Bible; in fact, at a very early age he could read even better than his master; whereas, in writing he was so poor that he doubted if any master could improve him. From later school days his teacher recalled that Daniel was "always the brightest boy in the school and Ezekiel, his brother, the next. But Daniel was much quicker in his studies than his brother. He would learn more in five minutes than any other boy would in five hours." Their master, recognizing remarkable qualities in both brothers, told the father that he "would do God's work injustice if he did not send both Daniel and Ezekiel to college." When a jack-knife was offered as a prize to the one who would commit to memory the most verses in the Bible between Saturday and Monday morning, Daniel Webster won by repeating sixty or seventy verses, and even then was stopped several chapters short of what he had learned. On entering the academy at 14, he was placed in the lowest class, but was promoted after a short period.

Daniel's manners and clothing subjected him to the ridicule of some of his classmates, but his tutor encouraged him by saying that he was a better scholar than any in his class, and that he learned more readily and easily than the others. Although he learned quickly either poetry or prose, he found it impossible to make a

declamation for he could not speak when all eyes were fixed upon him. At the age of 15 he learned Greek for college entrance in six weeks, under the tutorship of a senior from Dartmouth. He surprised his Latin tutor on one occasion by the length of a Virgil translation prepared in one night. Webster entered college recommended for his abilities rather than for his attainments; and during his course there, although he was a good scholar and punctual in attendance at all exercises, he was never spoken of as the best in his class.

4. Friends and associates. A companion of his early boyhood days was an old English soldier who had deserted at Bunker Hill, and who taught the boy to fish, in return for having the paper read to him. Other associates were members of the family and schoolmates.

5. Reading. At the age of 7 Webster entertained the teamsters who stopped at his father's inn by reading aloud out of the Psalms of David; at 10 or 12 he could repeat the psalms and hymns of Dr. Watts. He read Pope's *Essay on Man* and, according to one authority, learned to repeat the whole of it in a single day. He said later: "We had so few books that to read them once or twice was nothing. We thought they were all to be got by heart." Through a small circulating library Daniel obtained the *Spectator;* he also read the criticism of *Chevy Chase* for the sake of the verses cited. From the age of 9 to 13 he read whatever he could lay his hands upon and he read at all hours; even while tending the saw-mill one eye was on his book, the other, less attentively, on the machinery. His speed was proverbial; and he himself recalled that at 15 he read through in one sitting the common translation of *Don Quixote* in three or four volumes.

6. Production and achievement. At the age of 16 Webster wrote some verses which, according to his critic, exhibit "no more poetic talent, or power of versification, or vigor of mind than any lad of 16 similarly educated might show."

7. Evidences of precocity. (See also II 2, 3, and 5.) When Webster was about 8, he bought a cotton handkerchief inscribed with the Constitution of the United States; having read this he remembered it more or less ever after.

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At college Daniel Webster had a good reputation for scholarship; he was recognized not only as the best writer and speaker among the students but also as a skilled athlete. While attending Dartmouth he persuaded his parents to prepare his brother for college; he himself assisted the project financially. By superintending a small weekly paper he earned enough to pay his board, and he increased the family exchequer during vacation by teaching school.

At the age of 18 Webster delivered a Fourth of July oration which was "powerful in thought." He began to study politics, and at the age of 19, entered a law office to prepare for the profession his father had chosen for him. He read as much as he was able

in both history and literature. After four months of legal work, he took charge of an academy, and in addition, copied deeds, in order further to help in maintaining his brother at college. From the age of 20 to 22 he was in the law office of Mr. Thompson, and then for a year with Mr. Gore who was later commissioner to England and governor of Massachusetts.

During all this time Webster kept up his legal and literary reading; at one time he carried out legal translations from Latin and Norman French. Always for recreation he enjoyed fishing, shooting, and solitary riding. At the age of 23 he was offered a post at a good salary, but was persuaded by Mr. Gore to refuse it as unlikely to lead to anything better. Accompanied by the warmest recommendations from his employer, Webster was shortly after admitted to the practice of law at Boston. At 25 he became attorney and counsellor of the Superior Court of New Hampshire.

AII IQ 150 (Rel. coeff. of data, .60)

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JOHANN JOACHIM WINCKELMANN (1717–1768)

A German Critic and Author, the Founder of Scientific Archeology and the History of Classic Art

AI IQ 145 AII IQ 145

I. *Family standing.* Winckelmann was the only son of a poverty-stricken cobbler of Silesian descent and his wife, the daughter of a weaver.

II. *Development to age 17.*

1. Interests. Winckelmann's father wished to train his son to be a cobbler, but the boy showed no desire to engage in this occupation. He was intent on study, always slipping away whenever he could to read a book. He disliked childish sports and when out as the proctor of the younger children he memorized Latin and Greek vocables from his little pocket notebooks, while the children skated. From the Latin writers he copied passages he thought beautiful, and these he treasured as of greater value than all theological works. Indeed, during the hours of religious instruction he was inattentive to the discourse for he was reading classical works. Cicero was his favorite writer.

2. Education. Winckelmann attended the lower school of the village, but his eager mind was not satisfied with the poor instruc-

tion imparted there, and he begged his father to send him to the Latin school, an almost unprecedented desire for a village boy. The request was granted, and he became the pupil of Rector Tappert, an enthusiastic and devoted teacher. In the Gymnasium the emphasis in instruction was on Latin (twenty hours per week), but Greek was taught also with some care, while geometry, history, and geography were crowded into a single hour of private paid instruction.

3. School standing and progress. History, geography, languages, and the works of the classical writers held the youth entranced. In imitating the style of his favorite author, young Winckelmann stood first among his classmates.

4. Friends and associates. The pastor, the teacher, and the head beadle, as well as other townsfolk, were all kind to young Winckelmann. The boy was loyally devoted to his parents, and did not leave home until after his mother's death, when his father no longer needed his financial assistance.

5. Reading. By the time he was 15 the boy had collected a little library of his own. It was at about the same age that he first came upon works on art and sculpture.

6. Production and achievement. Winckelmann helped to pay his expenses at the Latin school by singing in the church choir and the village Currende, a popular chorus composed of poor children who sang publicly. Even as a boy Johann's scholarship was so sound that he became Tappert's assistant with the younger children, and attended the private lessons of the two sons of a distinguished lawyer in order to help them. In his first reported thesis, written when he was 14½, the young scholar discussed the problem "whether the image of God was created or added as a supernatural gift of God." When Winckelmann was 15 his teacher, Rector Tappert, lost his eyesight and so came to employ the boy as his assistant and amanuensis. It may have been about this time that Johann persuaded the other boys to help him excavate for archeological treasures in the old mounds of the Huns. At 16 he became choir prefect and assistant at the organ.

7. Evidences of precocity. (See II 1, 2, 3, and 6.)

AI IQ 145 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Winckelmann went from the provincial Latin school to attend the famous Cöllnisches Gymnasium at Berlin, where he earned his board and room by acting as private tutor to the rector's children. Under a very unusual teacher, named Damm, he learned Greek with perhaps even more than his usual enthusiasm. Two years at the Salzwedel Gymnasium followed, interrupted only by a foot journey to Hamburg to attend an auction of some beautiful editions of Greek and Roman authors. At 20 Winckelmann obtained a scholarship at the University of Halle. Again he had to coach in order to meet his expenses. Disappointed with the theology course he soon ceased to attend the lectures, devoting his time rather to deep reading and eager discussions with his many university friends. In theology his point of view was practically

that of the deists; in philosophy he was a follower of Wolf, and the lectures in this subject were the only ones he attended regularly. Winckelmann's enthusiasm for classical study was equalled by that of one student only, Gruchardt, later a distinguished military man. At 22 Johann was invited to the great library of the university Chancellor. During the next three years he showed the aspect of a *"homo vagus et inconstans"* which the rector of the Cöllnisches Gymnasium had earlier recognized in him. After holding a tutorship for a brief time in a cultured family, he spent a semester at Jena studying medicine and mathematics; then, selling his books to defray expenses, he took his "academic journey"; as tutor to a young man of good family, he got as far as Frankfort. He was a wanderer, but apparently a wanderer with a purpose, for on one occasion he made the long journey to Halle on foot in order to look up a reference in the library. Although urged to remain at his old university, and promised assistance if he would do so, he refused. At the age of 25 he accepted an assistant rectorship in Seehausen, which he had refused two years earlier.

AII IQ 145 (Rel. coeff. of data, .60)

REFERENCE

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CHAPTER XIX

CASES RATED AT AI IQ 150 TO 160

GEORGE BERKELEY (1685–1753)

An English Philosopher

AI IQ 150 AII IQ 175

I. *Family standing.* Berkeley's grandfather was collector of the port of Belfast. The father is reported to have been an officer of customs, a cornet, and a captain of horse. The family were not wealthy, but appear to have been recognized as members of the gentry. Berkeley's mother is said to have been a great-aunt of General Wolfe, of Quebec fame. She was probably of Irish descent.

II. *Development to age 17.*

1. Interests. Berkeley reports that his interest in philosophical speculation developed at the age of 8. As evidence of his enthusiasm for experimentation, it is related that he determined the sensations of hanging through a trial on himself.

2. Education. Berkeley entered the excellent Free School of Kilkenny, the "Eton of Ireland," at the age of 11, and remained in attendance a little more than three years. Just before his 15th birthday he entered Trinity College, Dublin, where the atmosphere was already charged with reaction against traditional scholasticism in physics and metaphysics.

3. School standing and progress. Among the 73 boys who had attended Kilkenny School up to the time of his entrance, and among those who attended afterward up to the close of the century, not one other besides George Berkeley entered the second class as young as he (aged 11). An intimate friend, Pryor, entered the third class at 15 and left the second class for the university at 17. Conterini, who distinguished himself by his intelligence, entered college at 18. But young Berkeley left the first class of the Kilkenny School, and entered the University of Dublin at the age of 14 years and 9 months.

In the first years of his college course, Berkeley pursued his studies "full of simplicity and enthusiasm." His associates regarded him as either the greatest genius or the greatest dunce in college; idlers jeered at him because of his eccentricities, and casual acquaintances thought him a fool, but his intimates rated him "a prodigy of learning and goodness of heart."

4. Friends and associates. At Kilkenny, Berkeley began his lifelong intimacy with Pryor, later a writer of some consequence. Fellow-students at Trinity College were, besides Pryor, Samuel Madden, later with Pryor a founder of the Royal Irish Society; Edward Bynge, afterward bishop; and Conterini, Goldsmith's uncle.

5. Reading. (No specific record.)
6. Production and achievement. (No specific record. See II 3.)
7. Evidences of precocity. Berkeley wrote: "I was distrustful at 8 years old and consequently by nature disposed for these new (philosophical) doctrines."

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Berkeley was made a Scholar of Trinity College, and two years later he obtained his B.A. degree there. Two Latin tracts, both on mathematical subjects, appeared from his pen at about the time of his graduation, but they did not reach publication until three years later. Berkeley (aged 20) joined with seven others in founding a society to promote investigations in the new philosophy of Boyle, Newton, and Locke; and during the undergraduate period he carried on independent study, the first fruits of which (in his notebooks) indicate that he had at that time already laid the foundation for a new philosophical system. At the age of 22 he obtained the M.A. degree, and, after passing an arduous examination "with unprecedented applause," was admitted to a fellowship. At 23 he was engaged on a psychological essay and a book of metaphysics. In the following year his *Essay Toward a New Theory of Vision* appeared. At the age of 25 Berkeley issued his *Treatise Concerning the Principles of Human Knowledge,* in which he expounded his metaphysical dualism. This work contained the leading thought and method of all of his later philosophy.

AII IQ 175 (Rel. coeff. of data, .75)

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CHRISTIAN CARL JONAS BUNSEN (1791–1860)

A Distinguished German Scholar and Diplomatist

AI IQ 150 AII IQ 165

I. *Family standing.* The Bunsens were originally agriculturalists. But Christian's grandfather was an advocate, and his father served the Dutch as a professional soldier in the Waldeck regiment. The latter was a man of considerable mental power, characterized by a strong sense of justice and truth; he was a great reader, accustomed to devote to study as much time as his scanty leisure permitted. Bunsen's mother had been for fifteen years the worthy and valued governess of the young nobles of Waldeck; her negative personality made very little impression, however, upon her son.

II. *Development to age 17.*

1. Interests. From his earliest childhood Bunsen loved sunshine and out-of-door life; he was fond of swimming, and sometimes

played ball. He never succeeded in learning singing or dancing; but he became a skilful, if infrequent, player of chess and piquet. Although he and his parents early decided that he should become a pastor, a passionate love of books later caused him to elect languages as his chief study at the university.

2. Education. At the age of 6, having learned reading and writing from his parents, he began to receive private lessons from a student. From 7 to 17 he attended the Gymnasium. In his 14th or 15th year, he learned English from a village pastor, who discussed various important topics with his aspiring pupil. At about the same time Christian became a member of the pre-confirmation class, receiving so-called religious instruction, which, however, as he himself recognized, lacked the essential characteristics of his father's vital Christianity. The regard in which the youth was held is shown by the fact that one of his masters gave him a valuable course of instruction gratis.

3. School standing and progress. When at the age of 7 Bunsen entered the Gymnasium, he was placed at once in a class above the usual grade for beginners. Quick to learn, he accomplished his tasks with power and certainty, and often assisted the other boys in their labors. In French he stood at the head of his class. Throughout his school career, his classmates admired him as a genius. "In knowledge and comprehension no individual could measure with him in any degree, and his laboriousness cast all the rest into shade." His memory was a matter of astonishment; and on one occasion he memorized Schiller's *Bell* in a day, afterward reciting it before a commissioner who was examining the school. He was respectful to all of his teachers, even when he doubted the authority of the weaker head.

Bunsen's last three years at the Gymnasium were triumphant; twice each year he was chosen to deliver the customary school address at the end of the term. In the estimation of his teachers, Bunsen was ready for the university at 15½, but, on account of his youth, he was kept in the lower school another year, to which a further half year was added because of the difficulty of securing a stipend during the French occupation.

4. Friends and associates. Bunsen was popular with his teachers and with his schoolfellows; two classmates became his intimate friends. His half-sister (eighteen years his senior) was his confidante and adviser.

5. Reading. At 13 or 14 Bunsen used all his small savings to purchase books or to subscribe to the circulating library of Corbach, a collection made up chiefly of novels, but containing also a translation of Shakespeare which was read with avidity. The boy read all the books he could find, whether in his father's small library or from the book shelves of the neighbors. With the pastor who taught him English he read Glover's *Leonidas*. At 14 Bunsen was described as "never otherwise than occupied, full of zeal and earnestness over his books."

6. Production and achievement. A schoolmate writes: "The execution of an essay of forty-one pages, set as a task, in one week,

was unheard of except in his case; and the sixty pages of fair transcript accomplished in one Sunday for the procrastinating advocate, to help his overtasked father, might well astonish those aware of the fact." An essay on *Hope,* written by young Bunsen at the age of 16, was sufficiently well thought of to be sent to the Göttingen faculty by Christian's patroness, the Countess of Bergheim, as a recommendation of her protégé.

7. Evidences of precocity. At 6½ the little lad read the morning prayer at the family devotions out of the collection of Schmolck. (See also II 3, 5, and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At the age of 17, Bunsen spent a happy year studying theology at the University of Marburg; but at the end of that time, believing that his health unfitted him for the calling of a pastor, he decided to relinquish his stipend and enter upon another course.

The next four years (aged 18 to 22), he spent at Göttingen, studying philosophy, classics, and ancient law, while maintaining himself by teaching at the Gymnasium, and later by tutoring. Beginning his travels in his 23rd year, he visited Italy, Holland, Denmark, and Sweden, as well as various centers of learning in Germany; at the same time he developed his knowledge of Persian and the Oriental languages, and later, of the Scandinavian. He planned a scheme of research into "the religion, laws, language, and literature of the Teutonic races." At 24 he made a very favorable impression on the historian Niebuhr whom he met in Berlin. Before he was 26 Bunsen went to Rome, and there devoted himself, while carrying on necessary teaching, to the study of philology and historical research.

AII IQ 165 (Rel. coeff. of data, .82)

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GEORGE GORDON, LORD BYRON (1788–1824)

A Celebrated English Poet

AI IQ 150 AII IQ 170

I. *Family standing.* A Byron accompanied William the Conqueror from France, and thereafter he and many of his descendants held a noble and distinguished place in the history of England. Byron's grandfather was "the celebrated Admiral John Byron." His son, the poet's father, was the profligate, "mad Jack Byron," who, after an excellent early education, gave himself up to a dissolute life. The mother came of illustrious Scottish stock, being descended from James I. She was "as proud as Lucifer of her descent from the Stuarts." A slave to the most violent tempers, "she was not a bad woman, but she was not a good mother." "If Byron owed anything to his parents, it was a plea for pardon."

II. *Development to age 17.*

1. Interests. Perhaps because of the consciousness of his physical defect, young Byron was much more anxious to distinguish himself by prowess in athletics than in learning. At Harrow his social gifts appeared. From being a shy and most unpopular boy before his public school days, he rose, at the age of 13, to be a leader in all the sports, schemes, and mischief of the school. Because of his fluency, turbulence, voice, copiousness of declamation, and action, his head master even then prophesied that he would become an orator. Byron was said to be always more ready to give a blow than to take one, and he was proud of the fact that at school he lost but one battle out of seven, and that one evidently not fairly fought. He says his pursuits at school were "cricketing, rebelling, rowing, and mischief." Love of the beautiful in nature was an early passion, and although fond of the whirl of life, Byron was always given to silent and solitary reflection, and he would often withdraw to a tomb in the churchyard for quiet thought. He early experienced amorous passions. His first affair, in his 8th year, was a violent attachment; his second, at 12, afforded inspiration for his first poetry; and his third, at 15, was serious enough to cause him grievous disappointment when it ended.

2. Education. Before he was 5 Byron was taught by his nurse to repeat a number of psalms. At his first school, he learned to repeat by rote with such fluency that it was only after some time discovered that he could not read a single word. He attended school in Scotland until he was 10 years old; then he was placed under the care of a tutor and a quack doctor at Nottingham for a year; from 11 to 13 he attended school at Dulwich; and from 13 to 17 attended a school at Harrow.

3. School standing and progress. Under a clever teacher Byron made rapid progress, and when he was 10 his proficiency in Latin was said by his tutor to be considerable for his age. According to the master of his school, Byron was a successful and eager student during the two years in Dulwich; he entered Harrow recommended as "a boy of some cleverness," but one whose "education had been neglected." His intellectual capacity could be hidden neither from the masters nor from the pupils; but, although he was remarkable for the extent of his general information, in other respects he was idle, being capable of great exertions, but of few continuous drudgeries. He was "oratorical and martial" rather than poetical, and his first declamation startled the head master "into some unwonted . . . . and sudden compliments." By the time he had reached his 16th year, Byron's inquisitive and excursive mind had made remarkable progress in accumulating that general and miscellaneous knowledge which left plodding competitors far behind.

4. Friends and associates. Among Harrow fellow-students were such celebrities as the Duke of Dorset, Lord Clare, Lord Delaware, John Wingfield, Cecil Tattersall, Edward Noel Long, Wildman, afterward proprietor of Newstead, and Sir Robert Peel. Byron himself was playful and good humored, beloved of his companions and his

schoolmates. "My school friendships," he says, "were with me passions, for I was always violent." On one occasion Byron is said to have taken half the blows intended for Peel; and on another to have defended a lame boy from a bully. He fought battles for George Sinclair, the prodigy of the school, and in turn, Sinclair wrote his exercises. Byron would follow none; but an opportunity for leadership would always win his co-operation in any cause.

5. Reading. From the moment he could read, his great passion was history; he was particularly delighted with the account in Roman history of the battle near Lake Regillus. He had read the Old Testament before he was 8 years old, and he had soon gained an intimate acquaintance with the historical parts of the Bible, about which he liked to talk with his schoolmaster. Byron's schoolmaster at Dulwich, finding the boy (aged 11 to 13) beyond the standard for his age in both history and poetry, allowed him access to his study. Here the youth found many books "to please his taste and gratify his curiosity, among others, a set of our poets from Chaucer to Churchill," which his master believed he read in entirety more than once. According to his own statement, Byron, at Harrow, "read eating, read in bed, read when no one else read, and had read all sorts of reading since he was 5 years old." When he was 18, so wide was his familiarity with books, and so great his store of information that his associates believed his knowledge could have been acquired only from digests and reviews; whereas, as a matter of fact, up to that age he had read sources only.

6. Production and achievement. At the age of 10 Byron composed some clever doggerel verse, perhaps his first production. A translation from Æschylus written at Harrow was received "coolly enough"; but poems from his 15th year, including the *Epitaph* and the first three pieces printed in *Hours of Idleness,* are remarkable productions for a youth of his age. Delivering, on one occasion, a declamation at Harrow, Byron surprised his schoolmaster by deviating with boldness and rapidity from the text of his composition without losing the thread of his discourse. The occurrence was the more striking, as his extemporaneous expression was more effective and colorful than his original written discourse.

7. Evidences of precocity. At a very early age (he was perhaps no more than 5) Byron was taken by his nurse to see the *Taming of the Shrew;* in the midst of the acting, the hot-headed little lad cried out passionately, supporting Katharina in an argument with Petruchio. As a child he was particularly inquisitive about religion.

Mrs. Byron was sure that her son was to be a great man, and this idea she transferred to him; his pride of ancestry and position were perhaps also derived from her. The response at the age of 9 to a remark about a future career in Parliament is characteristic: "If you read any speeches of mine, it will be in the House of Lords."

At the age of 10 Byron was under the care of a doctor, a charlatan, whose linguistic pretensions he very soon fathomed. Having prepared some nonsense which he gravely offered to his master, he was delighted to have the man walk into his trap and say—as the

boy had hoped and in answer to his suggestion—that it was "Italian." (See also II 3 and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From the age of 17 to 20 Byron attended Trinity College, Cambridge, where he became notorious for his eccentric behavior. He indulged freely in drink, and talked much with a group of friends. At 19 he published his *Hours of Idleness,* a group of poems, and then, stung by adverse criticism in the *Edinburgh Review,* he published his bitter retort, *English Bards and Scotch Reviewers.*

On attaining his majority Byron took his seat in the House of Lords; but very shortly he left England for a continental tour which provided the background for *Childe Harold,* published on his return (aged 24). So great was the impression produced by his poem that he awoke one morning and found himself famous. He resumed his Parliamentary connection a little later, but continued his literary activity also; and the next year (aged 25) published the *Giaour* and the *Bride of Abydos.*

AII IQ 170 (Rel. coeff. of data, .82)

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GEORGE CANNING (1770–1827)

A Distinguished English Statesman, Orator, and Wit

AI IQ 150 AII IQ 155

I. *Family standing.* Canning was descended on the paternal side from early English settlers in Ulster. His father had been, in his youth, attached to civil and religious liberty and to a young lady of whom his parents disapproved; and for these two too ardent attachments he was disinherited. Something of a poet and a political controversialist, the elder Canning, by profession a lawyer, was by nature sociable, generous, and careless. He fell deeply into debt, attempted to extricate himself by setting up as a wine merchant and then died, a year after his son's birth. The mother, who could trace her ancestry to early Irish kings and many later peers, was a woman of strong character and mental energy. After her husband's death, she found a means of supporting herself by going on the stage.

II. *Development to age 17.*

1. Interests. Canning recollected learning the rudiments of English at the age of 6; he also remembered spinning cockchafers on corking pins, and longing for bread and butter. As a public school boy he was devoted to study, and took little or no part in games.

Wilberforce, a fellow-student, noted in his diary that Canning was "quite a man, fond of acting, decent, and moral."

2. Education. When George was scarcely more than an infant his mother married an actor of no great pretensions, the member of a strolling troupe, and so from the age of 4 to 8, the child led a hand-to-mouth, bohemian existence, following the strolling players. At the age of 8 he was reported by one of the actors to be on the road to the gallows as the result of his step-father's influence; and so shortly afterward, his grandfather having been induced to grant a small annuity for his support, the lad was sent by his uncle to a private school. At 13 he went on to Eton where he remained four years. On reaching the age of 16 he received an inheritance sufficient to provide for his every need.

3. School standing and progress. At his first school Canning was an "admirer and would-be imitator" of the heroes of the head class in all their tricks and pranks; but he also won fame for his graceful verses, and at 13 stood third in his class for scholarship. At Eton, Canning's classical and literary attainments ranked him among the foremost of the boys. Within the limited range of subjects offered he studied hard and carried off many prizes. The other boys often solicited and deferred to his opinion; and he was called by Sir Spencer Walpole "perhaps, the most distinguished boy ever known at Eton."

4. Friends and associates. At Eton he had many friends who were later high in diplomatic circles; and in holidays he met, at his uncle's house, men like Sheridan and Fox, the Whig statesmen.

5. Reading. (No specific record.)

6. Production and achievement. In his 10th year Canning composed a poem on Greece, at which his uncle and aunt marvelled. It was published with limited alterations a few years later. He wrote other poems from time to time; and when he was 16 and 17 contributed by far the largest share of the articles included in a journal called *Microcosm,* edited by a small group of Etonians. Poems, parodies, classical commentary, and criticism, and some clever essays were among his contributions, and in these "his subtle humor and boisterous fun are already discernible." The youthful journalists criticized, in marked Addisonian style, Etonian modes of life, and then extended their comment to the habits of the world at large.

7. Evidences of precocity. At the age of 4 or 5 Canning surprised his relatives by his manner of justifying himself, when reproved for some trivial fault. The precocity of the boy's talents was noticed in his 9th year by the actor, Moody, who then induced the boy's uncle, Stratford Canning, the merchant, to take sole charge of his hopeful nephew.

AI IQ 150 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Canning spent three years at Oxford, having decided on the law as his future profession, because he believed it "the only path to the only desirable thing in this world, the gratification of ambition." While at the university he

was studious; he formed many lasting friendships; and he instituted a debating society. He was also awarded the Chancellor's medal for Latin verse of high merit. After graduation Canning studied law at Lincoln's Inn. A year later the French Revolution had caused him (aged 22) to become a Tory in politics, although he retained Fox and Sheridan among his personal friends. In 1793, at the age of 23, Canning entered Parliament. His previous reputation as a debating club orator had come to the notice of Pitt, and the elder debater was instrumental in securing the young politician's election. The new member's maiden speech, a year later, disappointed most of his friends, but he had shown his power to hold the attention of the House. At 25, in seconding the king's address, he made a speech which, in Pitt's estimation, gave evidence of even greater ability than fame had hitherto recognized.

AII IQ 155 (Rel. coeff. of data, .82)

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LAZARE NICOLAS MARGUERITE CARNOT (1753–1823)

A Celebrated French Statesman, Strategist, and Scientist

AI IQ 150 AII IQ 150

I. *Family standing.* Carnot was descended from one of the oldest and most distinguished families in France. His father, a provincial lawyer and notary, was a man of strong understanding, wide reading, and of great local repute. His mother was religious in temperament, and devoted to her husband and family.

II. *Development to age 17.*

1. Interests. Carnot's interests were from the first directed almost entirely to his studies. At the age of 10, his preoccupation with military science was shown by his behavior during the progress of a play to which his mother had taken him. The enthusiastic boy went so far as to interrupt the action of the piece, criticizing the disposition which the stage officer had made of his artillery. Eagerness to learn made Carnot anxious to travel, and, while still a child, he begged to be allowed to accompany an uncle on a long trip, a request which was, however, refused.

2. Education. Carnot's early education was supervised by his father. Later he was sent to the College of Autun where, with his

brother, he pursued a classical course of instruction. Thereafter, the Carnot boys attended a small seminary in the same town, where they followed a course in philosophy. On leaving this seminary, Lazare (aged 16) went to Paris to study mathematics.

3. School standing and progress. At the seminary of Autun, Carnot showed that he was endowed with a keen and original type of intelligence, always ready to discover new methods, and daunted by no obstacle. His character was even then marked by unusual strength, and he had great faith in his own ability.

4. Friends and associates. None are mentioned beside his father and his brother.

5. Reading. It is noted that at 16 he read with eagerness the works of contemporary philosophers. (But see also II 1, 2, and 7.)

6. Production and achievement. At the conclusion of his course at the seminary of Autun, young Carnot made the customary public presentation and defense of his thesis, but, contrary to custom, he refused professorial aid in the debate. His presentation was none the less brilliantly successful.

7. Evidences of precocity. As a child Carnot was especially studious and reflective, and it is recorded that he used to be seen for hours at a time reading or walking meditatively on the terraces before his home. (See also II 1, 3, and 6.) After going to Paris, at 16, he attracted the attention of D'Alembert, who found in him one "whose intellect overcame all difficulties, and who seemed actually to enjoy meeting them." D'Alembert chose Carnot as an assistant in several of his experiments, and evinced great satisfaction at the promptness with which the young mathematician responded to his questions. He predicted for him a brilliant career.

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 18 Carnot sat for the entrance examinations of the engineering school at Mezières, and won the third place on the list. He attracted the attention of Monge, and then began a friendship between the two scientists that lasted throughout life. Under his famous professor, Carnot went rapidly through all the branches of natural science. Higher mathematics and mechanics especially attracted him. On leaving the engineering school at the age of 20 Carnot was given the rank of first lieutenant, and for the next ten years lived and worked at various garrisons. Practically nothing is known of this period of his life, and all Carnot himself would say was: "I lived from day to day like so many other young men who follow a military career."

AII IQ 150 (Rel. coeff. of data, .53)

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CAMILLO BENSO, COUNT DI CAVOUR (1810–1861)

A Celebrated Italian Statesman

AI IQ 150 AII IQ 150

I. *Family standing.* The Bensos were an aristocratic family of long distinction, who, in every generation, contributed many efficient leaders to the public service. The father was endowed with an acute and active mind, and possessed practical knowledge of the world and of business. His ambition was said to be curbed only by respect for authority. The mother belonged to an ancient and excellent family of Huguenot refugees; she was a woman of attractive gifts and charming personality.

II. *Development to age 17.*

1. Interests. Camillo was fond of country life and pleasures. In a school play he took part on one occasion as the little spirit or genius of Italy. Always active, young Camillo was from his earliest childhood engaged in defending the cause of justice. He began to talk about constitutional Italy at 14, and at 15 was too outspokenly republican to be an acceptable prince's page.

2. Education. At 4 Cavour was taught, by his mother, to read, but, although he soon learned to read and write with ease, the passion for study did not appear until later. In the following years both his mother and his grandmother gave him lessons, and before he was 10 he received excellent instruction from a tutor, also. Lessons in German and botany were given by a special teacher.

From the age of 10 to 16 Camillo attended the Military Academy of Turin, a school patronized by the upper class, where the instruction was good in mathematics, but deficient in the humanities. Just before his 16th birthday, he passed his final examination, and received his commission as sub-lieutenant of engineers.

3. School standing and progress. At school Cavour (aged 10 to 16) easily led his class whenever he cared to apply himself. He is said to have received certain punishments at school, those reported having been for "arrogance to a teacher" and for "having books without permission." The eminent Professor Plana, after explaining a very difficult lesson which Camillo, alone of all the pupils, was able to follow with ease, advised his gifted pupil to become a celebrated mathematician like Lagrange. Cavour replied that his generation had need to study political science rather than mathematics, and added that he hoped to see Italy one day with a constitution and himself, perhaps, a minister. Cavour never seemed to study; but, when the examination came round, he grasped what he was required to learn without an effort, and surpassed his competitors with ease. He led his class at the finish, an honor which entitled him to choose the branch of the service he preferred to enter. His unusual proficiency in mathematics led him to select the engineering corps. He had so far excited the admiration of his examiners that his request was granted, although, according to the regulation, a

candidate could not enter that division of the army before the age of 20. (Cavour was only 16 at the time.)

4. Friends and associates. (No specific record.) Teachers and schoolmates are mentioned; and with these he appears to have been a favorite.

5. Reading. While attending school Cavour (aged 12 to 16) always looked forward to the visits of his brother, for on these occasions he heard the newspapers read aloud, to which he otherwise had no access. In addition to school requirements, Cavour read works of history and political economy. He read English and French as well as Italian. He read Lingard's *History;* and La Harpe pleased him greatly. He was always reading—not works of fiction, but rather papers, political treatises, and histories.

6. Production and achievement. A note addressed to the lady of his affections was written by Cavour at the age of 6. Letters from the school period reflect a solid, straightforward, manly fellow who despised vanity, and was enthusiastic for the heroes who fought for Greek independence.

At 15 Cavour was appointed page to the Prince of Carignano. Although his post was one of distinction and carried a small salary, the young republican risked and almost lost it through his too outspoken liberalism. At 16 (see II 3) he was assigned to less conspicuous duty in the department of the engineering corps at Turin.

7. Evidences of precocity. At 3 Camillo was a romping little fellow, always ready for fun. It is told that, at the age of 6, he arranged an interview with a town mayor to complain of certain incivilities his party had experienced in travel; apparently he succeeded on this occasion in bringing about the dismissal of an offending officer. (See also II 3 and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Cavour entered the corps of engineers at 16, and was sent two years later to the French frontier to supervise the construction of fortifications. He enjoyed the work, but found the life narrow and dull. During his stay, he lessened the monotony by reading English books on liberty and government. At 19½ he was ordered to Genoa. Here he fell in love, and, spurred on by the lady of his devotions, he plunged more deeply into liberal thought and discussion, thereby gradually incurring public suspicion. When a year later he was recalled to Turin, he had become a more confirmed Liberal than ever, longing to see Italy free from foreign domination. He spent eight months in virtual imprisonment in a fort, a little later, but he said, "I am happy in my solitude." And it was not long until he was granted his discharge from the army.

His family regarded Cavour's career thus far as a disgrace to them, and it was with pleasure on both sides that, at 21, after his retirement, he took charge of the family farm. Although the estate was in a poor condition, Cavour succeeded, through care and study, in making a success of his undertaking, and he continued his agri-

cultural pursuits (interrupted only by occasional visits to France and England) until he was 37. During all this time he found abundant leisure for study, especially along the lines of government.

AII IQ 150 (Rel. coeff. of data, .82)

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FRANÇOIS-RENÉ DE CHATEAUBRIAND (1768–1848)

A Celebrated French Author and Statesman

AI IQ 150 AII IQ 150

I. *Family standing.* Chateaubriand was the son of a noble house in Brittany, one of the most illustrious in France, although at the time of his birth the family fortunes were somewhat depleted. His father was stern, dry, unsociable, and dominated by one passion—his pride of race. The mother was a little, plain, restless woman who loved politics, confusion, and society. She petted one son, and was indifferent to her other children, including François-René.

II. *Development to age 17.*

1. Interests. Chateaubriand, through neglect a dirty, ragged boy, really loved cleanliness and finery. Denied pocket money, he kept away from the crowds on festival days, and spent his time on the beach watching the birds, gathering shells, and listening to the sound of the waves. At school he was fond of languages and mathematics. He loved literature; beginning with a fondness for poetry and later passing on to prose. His versatility of mind was also apparent in lesser things: he was clever at checkers, billiards, drawing, singing, hunting, and the management of arms. Although he was apt to tire of anything quickly, his patience and obstinacy made him stick to something worth doing until it was finished. Between 15 and 18, in a state of mystic rapture and practical indecision, he first began to write poetry.

2. Education. Chateaubriand and his youngest sister, neglected by their mother, were cared for by the servants. When the boy was between 3 and 7, the two children were sent daily to two old maids who taught them to read. At this time both brother and sister read badly enough, and, in consequence, the teachers scolded and the boy scratched. François-René began to pass for a scapegrace, a rebel, a drone, and finally a dunce. At home his father nagged and his mother groaned but extolled her eldest. A visit at the home of his kindly and intellectual grandmother was the only happy memory of Chateaubriand's childhood. Because the boy was destined for the marines, scholastic training was not emphasized, and for the most part he was allowed (aged 7 to 10) to run idle. His mother, secretly hoping that this son might enter the church, persuaded her husband to send him, at 10, to the College of Dôle where he could learn

mathematics, drawing, military tactics, and the English language, as well as the classics. At 13, after receiving with great ecstasy his first communion, he was sent to Rennes for two years of further preparation in mathematics, and there he continued the study of languages also. At 15 Chateaubriand went to Brest to take the naval examination. But his credentials were delayed, and during the enforced period of waiting, having exhausted his interest in fencing, drawing, and mathematics, he decided that he had no desire to be a marine, and so returned home. As a means of gaining time for a decision, he next declared his intention of entering the church, and was sent to Dinan to complete the humanities. Thereafter he spent two years at home trying to decide on his future career.

3. School standing and progress. Between 10 and 13, at the College of Dôle, Chateaubriand's abilities began to be manifest. His capacity for work was remarkable, and his memory extraordinary; it cost him nothing to learn the rudiments of any subject. In mathematics he displayed a clarity of perception that astonished his teacher, and he showed a decided taste for languages. In spite of his success in mathematics, he looked forward, with a sort of impatience, to the Latin class as a happy relaxation from the figures and numbers of geometry. At Rennes his talent in mathematics developed to a high point. At Dinan he knew more Latin than the masters; and there he began the study of Hebrew.

4. Friends and associates. Neglected by his parents, Chateaubriand ran the streets during his early years with the town ragamuffins, his dear little playmates, looking and acting like one of them. A friendship for a certain spoiled child, Gesril, who was always getting into some scrape, resulted in an evil reputation, continual trouble, and once, almost in serious injury from neighbors enraged at a foolish prank. At the age of 9 François-René was withdrawn by his parents from this influence, and the following year was sent to school. Here he was an independent spirit, neither a leader nor a follower. In vacations he enjoyed the military society at home. At Rennes (aged 13 to 15) he met Gesril again. Among other friends of this period were Moreau (later general) and Limoelan, who invented a famous infernal machine.

5. Reading. Chateaubriand, at 13, read Horace and a collection of *Confessions Mal Faites* which opened a new world to him. A little later he was charmed with the *Æneid* and *Télémaque* and he translated a voluptuous passage from Lucretius with such feeling, that the teacher snatched the book from him. Tibullus and Massillon were never out of his possession; and, although oppressed the while by a guilty conscience, he stole candle ends from the chapel so that at night he could read "these seductive descriptions of the disorders of the soul." (See II 3.)

6. Production and achievement. Chateaubriand displayed a remarkable memory by his ability to repeat, almost word for word, the several pages of a sermon he had heard, but to which he had not paid close attention, and also by the extraordinary feat of learning by heart his table of logarithms.

Between 10 and 13 he acquired the name of the *"Élegiaque,"* because, in making Latin translations, he fell so naturally into pentameter. He began seriously to write poetry between 15 and 18.

7. Evidences of precocity. (See II 3 and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From 16 to 18, Chateaubriand remained at home, unable to decide on a career. His indecision was finally ended by the gift of an army commission, which he held thereafter for four years. Chateaubriand's life in the army was not without its pleasures: the young officer was popular with his regiment; he was presented at Court, and he met many literary men. At 21, after witnessing the destruction of the Bastille, and filled with loathing by the repeated massacres, he contemplated emigration. The following year his regiment went over to the revolutionists, whereupon he retired from the army. Chateaubriand's interests and tastes were literary and artistic; in politics he was neutral, and this, as he says, "pleased no one." It seemed advisable to withdraw for a time from the center of activities; and so he set forth for America, bearing letters of introduction to President Washington. His first intention was to discover the Northwest Passage, but, gradually relinquishing this idea, he returned home to Brittany at 23. France was still in a turbulent state, and so, for his safety, and although he had little desire for the arrangement, Chateaubriand was married to a youthful heiress. Shortly after, he joined the French emigrants in Brussels, became incorporated in the army, was wounded, sick; finally he reached England, where he remained several years (aged 24 to 32). During this time he did much of his best writing.

AII IQ 150 (Rel. coeff. of data, .75)

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AUGUSTE COMTE (1798–1857)

A Celebrated French Philosopher, Founder of Positivism

AI IQ 150 AII IQ 170

I. *Family standing.* Comte's father was a district tax-receiver. No other record is preserved of the ancestry or family.

II. *Development to age 17.*

1. Interests. (None other than scholastic are reported.)

2. Education. Auguste's devout Catholic mother directed his early studies. At 9 he was sent to the local college, and at 15 he passed the examination for entrance to the Paris Polytechnic School.

3. School standing and progress. On entering the college Auguste was at once distinguished for his intelligence and industry. He was tractable with the professors, who were "fond and proud of their clever pupil," and he did such brilliant work, that he was given first place in the application for membership to the polytechnic school in Paris. At the polytechnic, Comte was distinguished as a student of intellectual power; his ability was recognized, not only by the professors, but by the students as well. At the end of the first year, he was ranked ninth in his class, the ranking depending partly on deportment, in which he stood low with all except the head professors.

4. Friends and associates. (No specific record.)

5. Reading. By the time he was 16 or 18 Comte had read through the numerous important philosophical works of France, England, and Germany.

6. Production and achievement. After passing the entrance examination for the Paris school at 15, one year in advance of the age at which entrance was allowed, Comte was appointed by the faculty of his own school to occupy the interval of waiting for his 16th birthday by giving mathematics courses in their institution.

7. Evidences of precocity. "He was a nervous child, impatient, very intelligent, very eager for instruction, with an extraordinarily precocious mind." (See also II 3.)

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* From 16 to 18 Comte studied at the polytechnic school in Paris. A great worker, he was devoted to reading, and delighted especially in philosophical writings. When he was 18, a mutinous demonstration on the part of the pupils against one of the masters (in which he, too, was included) broke up the school. Much to the parents' dissatisfaction, the youth resolved to remain in Paris, and earn his living there by giving lessons in mathematics. While seeking a position, he received an invitation to become a teacher of analytics in a proposed school in America. The plan never materialized, but, in the meantime, Comte had been appointed tutor at a good salary in the house of a wealthy banker. The duties here were too miscellaneous, and the youth (aged 19), restless under restraint, gave up the post after three weeks' trial. A year later, chancing to come in contact with Saint-Simon, Comte fell under the spell of the great theorist, and for six years he was proud to sign himself "pupil of Saint-Simon." At the age of 24 Comte was so completely in harmony with his master's views that he was able to prepare the philosophical introduction to the *Contrat Social.* This was not his first attempt at essay writing, for he had already published two essays, the first when he was 21, the second, one of his best, at 22. The preface to the *Contrat Social* shows that Comte had already developed a definite philosophical scheme, and that he had outlined plans for his life work. In bringing out the essay at a later date, Saint-Simon accompanied it with a patronizing notice, and when Comte (aged 26) objected to publication at this time, a breach

occurred, personal dislike matured into a quarrel, and the two philosophers separated.

AII IQ 170 (Rel. coeff. of data, .75)

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JEAN LE ROND D'ALEMBERT (1717–1783)

A Celebrated French Mathematician, Philosopher, and Author

AI IQ 150 AII IQ 165

I. *Family standing.* Although D'Alembert was an illegitimate child, both his parents were members of the aristocracy. His father, the Chevalier Destouches, was commissioner of French artillery, and later controller-general of German artillery. His mother was Mme. de Tencin, a famous woman of the salons, and author of novels which achieved praise and popularity in their time. An uncle was a popular dramatist of the day, and a member of the Academy.

II. *Development to age 17.*

1. Interests. (None are recorded aside from his studies.)

2. Education. At an early date D'Alembert's father assumed responsibility for the boy's education. He directed D'Alembert's course of training as long as he could, and, at his death, left him an annual income of 1200 livres, and a recommendation to the future care of the family.

At the age of 4, D'Alembert was placed in a boarding school in the suburb of Saint-Antoine, where his master, Berée, was "delighted with his intelligence." The boy made such progress in his studies that, when he was 10, his master said that he could teach him no more, and recommended that he be sent to college. Because of the boy's health the recommendation was not then carried out, and D'Alembert remained at school for two years more. At the age of 12 he entered the Mazarin College, conducted by the Jansenists, where he remained for five years and received, at the end of that time, the degree of Master of Arts.

3. School standing and progress. At the Jansenist college D'Alembert made such a "brilliant success" in his studies that the memory of it survived a long time in the school. His interest in literature was so animated, particularly in Latin poetry to which he devoted all his spare time, that one of his Jansenist masters remonstrated, warning him that poetry would "destroy the heart." The admonition, however, passed unheeded. D'Alembert's last two years at college were devoted to the study of philosophy. He stated afterward that,

owing to the fanaticism of his masters, he received no benefit from his labors except in mathematics, which he had studied incidentally. (See also II 1.)

4. Friends and associates. While still an infant, D'Alembert was confided by his father to the care of Mme. Rousseau, the wife of a glazier, and to this excellent woman he remained devoted all his life, supporting her in her old age. Up to the time of his death, Destouches came often to see his son, and was delighted on these occasions with the lad's intelligence and spirit. (Aside from these two persons, and his various teachers, no other early friends or associates are noted.)

5. Reading. (See II 3.)

6. Production and achievement. At the end of his first year of philosophy, D'Alembert (aged 16) wrote a commentary on Paul's Epistle to the Romans.

7. Evidences of precocity. (No further record. See II 2 and 4.)

AI IQ 150 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* After receiving his M.A. degree, D'Alembert spent two years ostensibly in the study of law, but all his spare time was devoted to mathematics. Without books, friend, or master, he progressed as best he might, by reading at the public library. D'Alembert became disgusted with the Jansenists, who still tried to convert him, and finally gave them up altogether. Acting on the advice of friends, he (aged 21) took up the study of medicine and, to avoid a temptation he could not otherwise resist, he removed all his mathematical books to the house of a friend. His precautions were in vain; at the end of the year he had abandoned medicine and returned to his beloved mathematics. During the year he read to the Academy of Sciences a *Mémoire sur le calcul intégral* and some months later a *Mémoire sur le refraction des corps solides.* His ability was recognized, and he was admitted to membership in the Academy at the age of 23. At 25 he published his *Traité de Dynamique,* in which is developed the principle that has since been called by his name.

AII IQ 165 (Rel. coeff. of data, .60)

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HUMPHRY DAVY (1778–1829)

A Celebrated English Chemist

AI IQ 150 AII IQ 175

I. *Family standing.* The Davys were Norfolk yeomen in fairly comfortable circumstances who, for many generations, had received a

lettered education. Humphry's grandfather was a builder, a man of local repute. The father, a wood carver, possessed some talent but, through shiftless habits and unsuccessful experiments in farming and the like, he dissipated the property he had inherited, and when he died, at 48, left his family in very straitened circumstances. The mother's forebears were originally wealthy and aristocratic. The mother herself was practical and energetic; after her husband's death she opened a milliner's shop, reared and educated her children, and paid off her husband's old debts.

II. *Development to age 17.*

1. Interests. Young Humphry led an active life. From early childhood he was fond of nature and of outdoor sports, especially fishing and hunting. A taste for natural history appeared early: Humphry had a little garden of his own, and he liked to collect birds and fishes, and to copy them with pen or brush. In drawing and painting, he showed some originality. A series of notebooks, begun when the boy was 16, show the ardor of his intellectual interests. During his 17th year he limited himself chiefly to the metaphysical branches, although the complete plan of study he had outlined included theology, ethics, logic, geography, botany, pharmacy, anatomy, surgery, chemistry, four modern foreign languages and three ancient ones, physics, mechanics, rhetoric and oratory, history, and mathematics.

2. Education. (See II 7.) In his 6th year Davy attended an elementary school where reading and writing were taught. A year later he entered the grammar school under a master who was, by turns, indulgent and severe, leaving his pupils for the most part to their own resources in planning their studies. In his 15th year and at his last school, Davy acquired a considerable knowledge of Latin and Greek. The next year he spent in desultory study, in sport, and in occasional dissipation. He studied French with a refugee to such good purpose that he learned to read it with facility, and to speak it fluently. At 16 he was apprenticed for three years to Mr. Borlase, a Penzance surgeon and apothecary of recognized ability.

3. School standing and progress. Davy made such rapid progress in the elementary grades that his teacher advised transferring him to the grammar school. At Truro School, Davy (aged 14) was regular in the performance of his duties and in his conduct; he was thought a clever boy, but not a prodigy. His translations from the classics into English verse, his best school exercises, were well thought of by his master. Davy was more distinguished out of school, and in the eyes of his comrades, than for any great advance in learning. Within school the stimulus to exertion was wanting, for he could take and maintain the lead in his class without special effort; perhaps, too, he was disgusted with the form in which classical knowledge was offered. During his apprenticeship to Mr. Borlase, Davy applied himself with earnest zeal to his professional studies and duties.

4. Friends and associates. Davy's good humor won the favor of his schoolfellows, although he appears to have become intimate

with none of them. His mother's foster-father had as great an influence upon his career as any one, for he virtually adopted the fatherless boy and made possible the continuation of his education.

5. Reading. Æsop's *Fables* and *Pilgrim's Progress* were Humphry's earliest favorites. A little later he began to read history, particularly English history. During his apprenticeship to the surgeon he read widely in medical works.

6. Production and achievement. Because of his facility in composing Latin and English verse, Davy's assistance was often requested by the other boys; and in the emergencies of boyish loves, he was resorted to for valentines and the like. A ready story teller, he was always popular for his tales of wonder and terror, whose sources, obscured somewhat by plentiful embellishments, were the *Arabian Nights* and the tales of Grandmother Davy. In written expression he was equally ready, as attested by exercises preserved from his 17th year. A composition written when he was 14 also shows considerable ability in handling a trite subject. *The Sons of Genius* (32 stanzas), published in 1799, was conceived, and perhaps written in part, when the young poet was 16.

7. Evidences of precocity. Davy was a strong, healthy, active child, "in every respect forward"; at just nine months of age he "walked off," and before he was 2 years old he could speak fluently. Before he had learned his letters, he could recite little prayers and stories which had been repeated to him. Before he had regularly learned to write, he amused himself by copying the figures in Æsop's *Fables*, contriving to reproduce in great letters the names of his subjects, as well as the artist's outline. And it is reported that he could recite a great part of *Pilgrim's Progress* even before he could well read it. When scarcely 5 years old, he began to make rhymes, and these he was called upon to recite in the Christmas gambols. A wit and a wag, he was remembered for his unusual originality of mind.

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* During his three-year apprenticeship with Borlase, the physician, Davy learned the technic of surgery, and carried on extended studies in related fields. At 18 or 19 he began the study of chemistry, and soon he was examining critically the views of Lavoisier, and was devising and carrying out experiments to test these and his own ideas on the same subjects. From 19 to 22 the youthful scientist was employed at Clifton, where opportunities occurred for more advanced research. At 20 he published two scientific papers; later he regretted their publication because of their premature views of the subject. At 22 his discovery of nitrous oxide and its effect on man resulted in his appointment to a lectureship at the Royal Institution, London. From that time until he was 25, he was busily engaged in investigations on tanning, electro-chemistry, and agricultural chemistry. His achievements were recognized, and at 23 he was promoted to a professorship.

AII IQ 175 (Rel. coeff. of data, .82)

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RENÉ DESCARTES (1596–1650)

A French Philosopher and Mathematician

AI IQ 150 AII IQ 160

I. *Family standing.* Descartes came of an old and respected family. His father, a country gentleman in easy circumstances, became a councillor of the Parliament of Brittany.

II. *Development to age 17.*

1. Interests. Descartes's youthful pursuits included fencing and dancing as well as study, but his love for learning was always paramount. It appeared in earliest childhood and persisted at school, although he came to prefer meditation to much reading. René was determined, even before his 16th year, to search only for truth, and in mathematics, begun at about this time, he believed he had found the goal he was seeking.

2. Education. A course of early home training, purposely simplified in order to spare the little lad's frail body, was followed by eight years' residence (aged 8 to 16) in an excellent Jesuit college where the regular course of study included classics, mathematics, and philosophy. Here René entered, in a student body of about 1,200, as one of twenty-four specially privileged "gentleman commoners." He devoted to meditation the morning hours when, on account of his physical weakness, he was permitted to lie in bed.

3. School standing and progress. Descartes's ambition was to surpass all his schoolfellows, especially those who had previously excelled, and in this he was largely successful for he was excellent in deportment and in class studies. Because of his ability and the excellence of his achievement, he was released from regular class attendance and from the assigned exercises. He was considered at least the equal of the best students in the school, those who were later to take the places of their instructors. At 16 this "happiest part of his life" came to an end; and "overwhelmed by the blessings and praises of his teachers," Descartes returned home. Far from being puffed up by his own knowledge he perceived only his ignorance, and was humbled by it.

4. Friends and associates. Descartes made few friendships and these only with people much older than himself (including several of his teachers), but they were lasting.

5. Reading. From his 9th year Descartes was happiest when alone with his books or in silent meditation. Apparently, although he loved the classics and poetry, he shunned fiction; he cared for

logic and rhetoric. Not content to limit himself to the regular assignments for study he read all of the books that fell into his hands, especially those dealing with "the most curious and rare" subjects.

6. Production and achievement. At the Jesuit school the writing of poems was a regular part of the course; unfortunately, no examples of Descartes's work are preserved. A single biographer, without stating his evidence, asserts that Descartes's great mathematical discovery, the application of algebra to the problems of geometry, was made before the young scientist reached his 18th year.

7. Evidences of precocity. Before he was 8 years old, René was called by his father the "little philosopher" because of his questions about reasons and causes. Although his parent, fearing to overtax the boy's delicate health, tried to refrain altogether from training him in his earliest years, so strong was the boy's desire to learn and to study that he at length overcame the parental objection.

AI IQ 150 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* On leaving college Descartes spent a year at home and then, at 18, went to Paris where, after a period of relaxation, he resumed his studies, continuing them thereafter until his 22nd year. Then, although despising war and warfare, he enlisted under the Prince of Nassau as a means of fulfilling a desire to travel. The years of his military service were devoted largely to self-directed study. The fruits of this period, five or six works published in his 22nd and 23rd years, remarkable for their originality, contained the basis of their author's later philosophical discussions. For many years Descartes travelled throughout Central and Western Europe, serving as a volunteer under several princes, and participating in battle with philosophic detachment. His one aim was to find truth by experience in the world and association with its people.

AII IQ 160 (Rel. coeff. of data, .60)

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DENIS DIDEROT (1713–1784)

A Celebrated French Philosopher and Writer

AI IQ 150 AII IQ 145

I. *Family standing.* Diderot's family had been engaged in the manufacture of cutlery for at least two centuries. Denis's father was a "master of his craft; a much-respected and respect-worthy man." The mother was "a loving-hearted, just woman."

II. *Development to age 17.*

1. Interests. No interests are recorded aside from studies, but Denis was not wholly serious, for as a boy he was fond of sport

and mischief. At one time he tired of school and decided to follow his father's trade, but four or five days in the shop cured him of the whim and he willingly returned to his studies.

2. Education. At the age of 8 young Diderot was placed in the Jesuit school in his native town, and here he remained until his 20th year.

3. School standing and progress. "The progress of young Diderot was rapid. He acquitted himself in the humanities in a brilliant manner which early showed the unusual capacity which distinguished him throughout life." On one occasion at least, it is recorded that he was awarded "prizes of all sorts, for composition, for poetry, for memory."

4. Friends and associates. (No further record.)

5. Reading. (No further record.)

6. Production and achievement. (No further record.)

7. Evidences of precocity. (No further record.)

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* On the completion of his course at the lower school, Diderot (aged 19 or 20) entered the Jesuit Collège d'Harcourt where he remained two years. Thereafter his parents offered him a choice between the professions of medicine and law, but Diderot refused both. He wished to continue his studies, but his father would not support him in this course, so young Denis, insistent on the pursuit of letters, became a literary hack. Occasionally he earned money by teaching, but the mechanical toil was unpalatable and he preferred the freedom of the garret. He once said to an employer, "I am making men of your children, but each day I am becoming a child with them. What I want is not to live better but to avoid dying." He received monetary assistance from time to time from his old friends. In this way, poor but free, Diderot passed the next ten years of his life.

AII IQ 145 (Rel. coeff. of data, .60)

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PIERRE GASSENDI (1592–1655)

A Celebrated French Philosopher, Physicist, and Astronomer

AI IQ 150 AII IQ 160

I. *Family standing.* Gassendi's parents were "modest working people, remarkable neither for birth nor for fortune."

II. *Development to age 17.*

1. Interests. (None are recorded, apart from his studies.)

2. Education. "At a very early age" Gassendi was sent to the college of Digne.

3. School standing and progress. He showed "particular aptitude for languages and mathematics," and at 16 he was invited to lecture in rhetoric at the college he had attended.

4. Friends and associates. (No further record.)

5. Reading. (No further record.)

6. Production and achievement. At the age of 13, "the little doctor," as Gassendi was called, composed minor dramas in prose and poetry, and with his playmates presented them in the homes of the leading families of the city.

7. Evidences of precocity. From his earliest years Gassendi "showed unmistakable marks of genius," and when scarcely 4 he preached little sermons. At 7 he showed his leaning toward astronomy by giving his comrades ingenious explanations of the movements of the moon. At 10 he harangued the Bishop of Digne in Latin, and that worthy predicted for him a brilliant future. (See also II 3 and 6.)

AI IQ 150 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 Gassendi went to Aix to study Greek, Hebrew, and theology, and then to Avignon where he took the degree of Doctor. A little later he obtained a small benefice at Digne. At the age of 21, at Avignon, having been offered a choice of the chairs of theology or philosophy he chose the former. Three years later he was given the chair of philosophy in addition. At the age of 25 he took Holy Orders, but continued teaching five years longer.

AII IQ 160 (Rel. coeff. of data, .53)

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GEORG WILHELM FRIEDRICH HEGEL (1770–1831)

A Celebrated German Philosopher

AI IQ 150 AII IQ 145

I. *Family standing.* Hegel's paternal ancestors were members of the middle class, teachers, preachers, officials, and tradesmen. Friedrich's father was an officer in the fiscal service. His mother was a woman of considerable education and intelligence. Of her family we have no report.

II. *Development to age 17.*

1. Interests. Hegel, at the age of 6, was fond of physical activity, but his dancing teacher found him awkward and ungainly. From his 6th year until he left the university, the boy's scholastic activities and interests demanded more than the usual amount of time and energy: he found it difficult to satisfy his naturally inquisitive mind. Of other than academic interests it is reported only that he had, at the age of 15, made a collection of insects.

2. Education. The children's education was the most important concern of the household. The mother began instructing her son, Friedrich, in his 5th year, and she "was tender to him because he learned so well." Before he was 6 the boy was sent to a Latin school. At 10 a course of study under excellent private tutors was planned by his father in order to advance the boy more rapidly than his regular school work would do. The special studies in which he received private instruction included Latin, Greek (?), and mathematics, both pure and applied, with practical surveying. Parts of Vida's *Christiade* were learned by heart. In his 14th year Hebrew was added.

3. School standing and progress. Before he was 9 years old Hegel had begun to show intellectual curiosity and the power to reflect and generalize. At the age of 12 he was familiar with the definitions of the *idea clara;* at 14¾ he was familiar with the principles of Wolf's logic; and at 15 he began to have his own ideas on the interpretation of history. At this age he was carrying heavy courses in classics and mathematics in addition to his regular school work. An out-of-school task was the translation of Longinus *On the Sublime.* Hegel had the unusual taste to prefer the harder Greek to the easier Latin.

4. Friends and associates. Although happy as a child among children, Hegel began at an early age to seek the companionship of older persons. His teacher, Löffler, and his confessor, the Prelate Grieninger, and other men of parts began to interest themselves in his progress when he was no more than 8 or 9 years of age. In his teens he met the antiquarian Betulius who became his friend.

5. Reading. When Hegel was 8 years old he was presented by his teacher, Löffler, with a copy of Wieland's *Shakespeare.* The donor's comment was this, "You don't understand it yet, but you soon will." The first play read by the boy himself was *The Merry Wives of Windsor.* Hegel read more than the usual school selection of Greek and Latin classics, and he also read Hebrew. He ranged widely in German history, literature, and philosophy. At 16 or 17, or perhaps even earlier, Hegel formed the habit of reading a number of literary periodicals; and this examination of the critical works of others gave him objectivity of judgment and critical balance.

6. Production and achievement. At the age of 14¾ Hegel began to preserve in a diary a record of his school progress in German and Latin, an account of important events, and various ethical and intellectual discourses. This record is for the most part dry, pedantic, and critical, written in the spirit of contemporary enlightenment. From works he had read he compiled a book of definitions; and a little later, at 16 or 17, he began to fill commonplace books with extracts from his reading arranged systematically, a practice which he continued regularly thereafter. He made a complete bibliography, in correct technical form, of the books in his own library. In his 15th year he made a school declamation which was praised because it was a true presentation of the spirit of the period which it was designed to represent.

7. Evidences of precocity. Hegel's development and school progress gave evidence of a deep, critical, thoughtful mind. (See also II 3, 4, 5, and 6.)

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 18 Hegel entered the University of Tübingen with an excellent school record behind him. As he was destined for the church, theology, reinforced with philosophy, naturally formed the basis of his study. The semimonastic discipline and narrow atmosphere of the university repelled him, and he found solace in riding, dancing, and drinking, as well as in the study of classical and modern authors. As time proceeded Hegel was more and more drawn away from scholastic theology toward the wider, freer field of philosophy, especially in its relation to religion. The statement in his certificate of dismissal that "he had bestowed no attention whatever on philosophy," is a better indication of the slight knowledge his instructors had of him than it is of his interest or achievement.

The next three years the youth (aged 23 to 26) spent in Switzerland as a tutor. At this time his study was chiefly directed to problems in religion and ethics, and these he attempted to solve from the historical rather than the philosophical standpoint. This period is important because it was then that Hegel's philosophy was forming and developing.

AII IQ 145 (Rel. coeff. of data, .60)

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VICTOR HUGO (1802–1855)

A Celebrated French Poet, the Recognized Leader of the Romantic School of the 19th Century in France

AI IQ 150 AII IQ 170

I. *Family standing.* The Hugos were worthy and respectable people, belonging to the artisan class. The grandfather was a carpenter whose son, Victor's father, rose, during the Napoleonic Wars, to the rank of lieutenant-general and first aide-de-camp of Joseph Bonaparte, King of Spain. The elder Hugo was the author of some important military works. The mother, who was the daughter of a ship-owner, was an intelligent, brave, and gentle woman, and a model mother.

II. *Development to age 17.*

1. Interests. Between his 7th and his 10th year Victor Hugo lived in Paris, where he spent much of his time out of doors playing in a

beautiful garden which he loved, and which he and his brother peopled with imaginary characters. At the age of 7 he ran away from school to see Napoleon pass, and was deeply impressed by the silent "god of brass." At 9 he experienced his first love affair, but not with the future Mme. Hugo, who was, however, at that time one of his playmates. Young Hugo liked all boyish amusements, but he enjoyed them particularly when he was able, by force or good will, to take the lead. At the boarding school he and his brother were recognized as the commanders or "kings" of two opposing factions; and Victor was considered "a terrible despot." During the last Napoleonic Wars he became absorbed in geography, which he learned thoroughly by studying an elaborate collection of military maps. Though studious he was no bookworm, but from his 10th year his most intense interest was in literature, stimulated, no doubt, by his first visit to the theater, an experience he never forgot. Before he was 13 he had a marionette theater in which he performed plays of his own composition. At 13 poetry began to assume first place in his thoughts, and for the next three years he made verses of every variety. His play hours were devoted to dramatic pursuits, and his evenings to the translation of the odes of Horace and fragments of Virgil into French verse. "The boy who had taught himself the principles of French prosody knew also by instinct what was good or bad as literature, and he aimed high"; "Chateaubriand or nothing" was his motto.

2. Education. Between his 4th and his 6th year the tiny frail little fellow who often cried without any one knowing why, attended his first school. At the age of 6 he entered an elementary class taught by an ex-priest. From 9 to 11, while the family was in Spain with the court of King Joseph, Victor attended the College of Nobles, and participated there in the constant feud between the French and the Spanish youth. Mme. Hugo was anxious to secure for her children the best education possible, and so, on their return to Paris, Victor Hugo, aged 11, and his brothers were instructed by their former tutor. The Hugo boys spent the Hundred Days in a boarding school, and while there they attended, in addition to their regular courses, lectures on physics, philosophy, and mathematics at the Collège Louis-le-Grand. At the age of 16, Victor became convinced that a life of letters, and not one of arms, held the greatest interest for him, and so he withdrew from school without taking the entrance examination to the military college.

3. School standing and progress. During a sojourn in Italy his father wrote of Victor (aged 5), "He has a great aptitude for study: he is as steady as his eldest brother, and of a very reflective turn. He speaks little, and never except to the point." Before he was 6, the boy had taught himself to read "by merely looking at the printed letters"; and he picked up writing and arithmetic almost as quickly. When he was not yet 14, his talent for mathematics brought him under the notice of the masters, and at the general examination both he and his brother obtained honorable mention. Hugo's method of solving mathematical problems was "romantic," for he invented the

solution rather than deduced it. At 16 he won some distinction in physics, but philosophy did not interest him and now he could only concentrate on mathematics by fits and starts.

4. Friends and associates. Hugo's brothers, his classmates, and his teachers were his early associates. His mother's influence upon his development and the development of his talent was strong and persistent.

5. Reading. According to the liberal plan of Mme. Hugo, her son was allowed from his 10th year to read anything and everything, and even at this tender age he was often sent to the library to select reading matter for her. Mme. Hugo subscribed to a reading-room for her son (aged 11), and there he read whatever came in his way —romances, books of science, and even *Les Contemporaines* of Retif de la Bretonne. It is recorded that at 16 he read furtively during a lecture hour *Le Génie du Christianisme.*

6. Production and achievement. As evidence of Hugo's early literary skill and interest, translations of fables from French into Latin, made by the young author at the age of 10 and 11, are preserved in their original form adorned with the youthful poet's reflections, and ornamented with appropriate drawings. At the age of 13, Hugo wrote his first verses about Roland and the age of chivalry in which, "not having learned his prosody, he invented his laws of rhythm for himself." A little later he turned to the composition of historical dramas, and wrote plays modeled after Molière. These were presented in elaborate costumes by the Hugo brothers and their friends, Victor himself assuming the principal rôles. (See also II 1.) During a period of enforced leisure which followed an accident, Victor devoted himself to the composition of odes, satires, epistles and poems in many styles, and during his 14th and 15th years he filled ten exercise books full of verse (46 pieces in all), some of which show genuine merit. At 14 he wrote an imaginative poem, *Le Déluge,* and a tragedy, *Itamène,* in the approved classic style. A second drama, *Athalie,* was sketched out during the same year but not completed, and this was followed by an opera-comique and some short verses. At 15, for a poem of 335 lines on the assigned theme, "The happiness which may be derived from study in any situation of life," he received ninth place in the prize competition of the French Academy, a remarkable achievement for a boy. As a consequence he became a privileged person at school, and was invited to dinner by Neufchateau, a writer and statesman of importance. Between the ages of 13 and 17 he had written odes, satires, epistles, poems, tragedies, elegies, and idylls; imitations of Ossian; translations of Virgil, Horace, Lucian, Ansonius, and Martial; romances, fables, stories, epigrams, madrigals, riddles, acrostics, charades, enigmas, and impromptus. At 16 he wrote, in a fortnight, his first romance, *Bug-Jargal.*

7. Evidences of precocity. (See II 1, 3, 5, and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 Hugo's love for the future Mme. Hugo provided the spur, if any were needed, to his poetic

inspiration: poetry and prose issued from his pen in a steady stream. In a competition, the young author received first prize for a poem, excelling even the production which Lamartine had submitted. A volume of poems, appearing when the poet was 20, met with the King's approval and brought Hugo a pension. Shortly after this the young man married. Reviews and articles on painting and sculpture appeared and were followed by a novel which, although only a moderate success, nevertheless secured the author a further pension. At 22 Hugo was made a Chevalier of the Legion of Honor. The next years were devoted to writing; poems, odes, and ballads appeared, and in the poet's 26th year was published "the great dramatic poem *Cromwell,* a masterpiece at all points except that of fitness for the modern stage."

AII IQ 170 (Rel. coeff. of data, .82)

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FÉLICITÉ ROBERT DE LAMENNAIS (1782–1854)

A French Writer and Philosopher

AI IQ 150 AII IQ 155

I. *Family standing.* The Robert family were hardy, adventurous seafarers, determined, energetic, and apt to extreme views and opinions. The father was a well-to-do merchant and shipowner whose prosperity was, however, destroyed by the Revolution. A loyal Catholic, he was a man of kindly manner, but of very strong convictions. He was ennobled by Louis XVI for important services to the government, and for generosity to the poor in times of scarcity. The mother belonged to a family of high professional and civil standing; she was a woman of culture and wide reading.

II. *Development to age 17.*

1. Interests. In his youth Lamennais was passionately devoted to the coast and to the sea. At 10, and for some years thereafter, he was very religious, in a mystic and devotional rather than an intellectual and doctrinal fashion. He loved to play the church service, to go through the ritual, and to pray for hours to the Virgin, thus earning from his companions the nickname of "the little bigot." But the dry catechism filled him with disgust; and he disputed so effectively with the priest who was to give him the first communion, and quoted Rousseau so aptly, that his communion was postponed until he should lose his heretical views. Midnight mass during the years of the Revolution made a deep impression upon him. At 14 or

15 he began to feel an ennui which he combatted by enthusiastic participation in physical exercise, riding, fencing, swimming, etc., as well as by wide reading and the study of music.

2. Education. In his earlier years Félicité refused to learn, except to please his nurse. After his mother's death, which occurred when the boy was 5 years old, he and his brother were adopted by an uncle and aunt, and thereafter for five years the younger brother attended school. In addition he was tutored by the Abbé Carré. At the age of 10 Félicité withdrew from school and was guided for a time by his elder brother, but the latter had not sufficient authority, and the uncle had to be called in to discipline the lively youngster. Lamennais continued his studies under his uncle's direction. At the age of 14 he was taken by his father on a trip to Paris—a great event.

3. School standing and progress. Lamennais, at 5, was unbelievably fractious; he was unwilling to learn lessons or to permit others to do so, and was impervious to advice. At school he kept his playmates in a ferment by his teasing, his jokes and his games. At length the schoolmaster conceived the idea of attaching a heavy weight to him by a string tied to his belt, and this device was used on numerous occasions to keep the restless youth in his place. At the age of 8 young Lamennais won a prize, and he afterward said, "this was the most beautiful day of my life." He was always extreme, either completely lazy or frenziedly studious, charmingly tractable or completely uncontrollable. At the age of 12 he suddenly began to take a great interest in his studies, and his progress became rapid. He always read, pen in hand, and noted passages that struck his fancy. As soon as he was able to read Latin readily, he learned Greek by himself with no other help than his books. He did not neglect English, Italian, Spanish, or German.

4. Friends and associates. In his earliest childhood a vague feeling of superiority held Lamennais aloof from other children. (There is no mention of associates other than schoolmates, referred to incidentally, and members of the family.)

5. Reading. Lamennais was punished for misdemeanors by being shut up in his uncle's library. Here he learned to read by devouring everything in the classics, theology, philosophy, Voltaire, Rousseau, and Revolutionary treatises. Through reading he obtained the most valuable part of his education; and to satisfy his insatiable appetite for books he would commit a misdeed in order to be shut up in the library. Before he was 10 Félicité had read Rousseau, and at 12 Horace and Tacitus. During the following years he continued to read widely. When about 16 years of age, he turned from philosophy to such poets as Anacreon, Catullus, Tasso, and Metastasio.

6. Production and achievement. A Latin exercise is preserved as evidence of Lamennais's ability in his 11th year. At 12 he began to write compositions on such topics as "The happiness of country life," and at 14 his first publication appeared in "some obscure sheet." At 14 or 15 he submitted to the competitive examination of an academy an essay combating the modern philosophy. He imitated

the thought and style of the romantic poets in both his verse and his prose. Some of his earliest verses, without having the ease or the grace of the model, show a real facility; but it is in his prose that he is at his best, reflecting there the fresh colors of the ancient poets. In learning a foreign language, Lamennais began by making an abridged grammar, passing then to translation and exercises. He filled whole volumes with these exercises, and on every page are found ingenious thoughts which would not be out of place among those which he later published.

7. Evidences of precocity. A delicate child, Lamennais was distinguished in his infancy by a peculiar vivacity. At the age of 8 as he walked by the sea, "his master," he believed that he recognized the Infinite. Seeing that others were not moved as he, he cried out, "They behold what I behold, but they do not see what I see!"

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Until Lamennais reached the age of 22 he remained at home. In spite of his pleasure in deep study of literature, especially classical literature, music, and in outdoor exercise, he was frequently oppressed by melancholy. At 22 he experienced an intellectual conversion to the Catholic faith, and shortly afterward became professor of mathematics in an ecclesiastical college. His health failing, however, he had to give up the post and return to the country, and later to Paris. In the metropolis he plunged alternately into active exercise and profound study, with the result that his vigor returned very slowly. A religious pamphlet published by him at 26 was of sufficient consequence to be seized by Napoleon's police.

AII IQ 155 (Rel. coeff. of data, .60)

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HENRY WADSWORTH LONGFELLOW (1807–1882)

American Poet and Man of Letters

AI IQ 150 AII IQ 160

I. *Family standing.* Henry's father, Stephen Longfellow, a descendant of four Mayflower pilgrims, "was a man much honored in the community for his ability in his profession of the law, for his sound good sense in affairs, for his high integrity, his liberality and public spirit." The mother's father was General Peleg Wadsworth, a graduate of Harvard who taught school at Plymouth, rose to a major-general's command in the Revolution, and served for fourteen years in the National Congress. The mother herself had many in-

terests, religious, social, intellectual, and artistic. She was a "kind friend and neighbor," and "the confidante of her children."

II. *Development to age 17.*

1. Interests. When Henry was only 8 months old, his mother wrote: "He is an active rogue, and wishes for nothing so much as singing and dancing." Just before the outbreak of the war of 1812, when the boy was 5 years old, his aunt wrote: "Our little Henry is ready to march, he had his tin gun prepared and his head powdered a week ago." In his early boyhood, although he disliked loud noises and rude excitements, he "was fond of all boys' games"; but he was too tender-hearted for hunting, and was never a sportsman: "he loved much better to be under a tree and read." At 16 politics were almost as uninteresting to him as "so many columns of the tradesmen's advertisements." At the same age, during an important religious meeting, he "had been so much of a heretic" as to remain all day at home.

2. Education. In their early childhood Henry and his brother were taught the Bible on Sunday afternoons by their mother. In his 4th and 5th years, Henry attended a private school where he learned his letters. At 5 he attended public school for a week, but the companionship of rough boys there proved distasteful, and so he was transferred to a private school. At 6 he followed his teacher, Mr. Carter, to the Portland Academy. When he was 14, Henry, with his older brother, passed successfully the entrance examination to Bowdoin College, but did not take up residence there until the beginning of the Sophomore year.

3. School standing and progress. While Henry (aged 6) was attending the Portland Academy, his teacher sent this "billet" home to the little lad's parents: "Master Henry Longfellow is one of the best boys we have in school. He spells and reads very well. He also can add and multiply numbers. His conduct last quarter was very correct and amiable." At the age of 7 little Henry is reported to have "gone half through his Latin Grammar." At this time he stood "above several boys twice as old as he." When he was 10 the preceptor certified that he had "during the week distinguished himself by his good deportment, Monday morning's lesson and occasional levity excepted." At college the higher mathematics gave him some trouble, but his scholastic performance was superior, the excellence of his compositions being particularly noteworthy.

4. Friends and associates. In his early teens Longfellow established a literary exchange and partnership with his friend William Browne, "a bright youth a little older than himself." At college Henry was described as "somewhat fastidious in the choice of companions, though friendly toward all."

5. Reading. Before he was 10 Henry read Gray's *Fables;* he became quite indignant over *The Hare with Many Friends,* but consoled himself by refusing to believe it true. At 12, Irving's *Sketch Book* fascinated his imagination; it was to him the *one* book of the period which satisfied his desires. At 16 he was reading Gray's *Odes*

and Dr. Johnson's *Criticisms.* By this time he had also read Heckewelder's *History, Manners, and Customs of the Indian Natives of Pennsylvania and the Neighboring States.* At the same period he found Locke *On the Human Understanding* "neither remarkably hard nor uninteresting."

6. Production and achievement. When he was nearly 7 young Longfellow wrote his first letter, a clear but simple epistle to his father. His first printed verses appeared in the Portland *Gazette* when he was not quite 14. From time to time, other pieces, which he later described as "not worth reprinting," appeared in the *Gazette,* and he continued to contribute to that paper until after he went to college at the age of 15. While at college he also wrote some prose articles for the *American Monthly Magazine.* The editor complimented the "taste and talent" displayed in *The Poor Student,* and in *Youth and Age.*

7. Evidences of precocity. (See II 1, 3, 5, and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Longfellow's devotion to the study of literature continued, and various verse and prose writings appeared from his pen. Upon graduating fourth in a class of thirty-eight he was offered a Bowdoin professorship of modern languages, with the proposal that he spend three years in Europe, fitting himself for the position. After spending a winter reading law in his father's office, Longfellow carried out this plan. During his professional service, and before he was 25, he published a number of textbooks for the study of modern languages. He married at 24.

AII IQ 160 (Rel. coeff. of data, .75)

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JAKOB LUDWIG FELIX MENDELSSOHN-BARTHOLDY (1809–1847)

A Celebrated German Composer and Musician

AI IQ 150 AII IQ 155

I. *Family standing.* Moses Mendelssohn (called "the modern Plato"), grandfather of Felix, was a profound philosophical thinker, and one of the noblest representatives of true humanity. He had a fine taste for music, and was colaborer with Nicolai in his *Library of the Fine Arts.* Abraham Mendelssohn, Felix' father, although not equal to his father and his son in mental productivity, had many fine traits of mind and character. He was a successful and wealthy merchant of Berlin. Although a Jew by birth, he had his children trained in the Protestant faith and united to the Reformed Church. His judgment with regard to music was clear and sound, although he did not understand its technicalities. Felix' mother was a finely educated woman, with great accomplishments in music, art, and

languages — French, Italian, and Greek. She was in every way unusual, and was noted for her brilliant mind and great personal charm.

II. *Development to age 17.*

1. Interests. Aside from music, Felix had many other interests: he was devoted to gymnastics, took great pleasure in riding, swimming, and dancing, and played both billiards and chess with ardor; drawing was like a professional avocation with him and his letter-writing was remarkable for neatness and finish. Whatever he did he thought worth doing well.

2. Education. The education of the Mendelssohn children was planned with the greatest care by their father, who secured for them skilled teachers, men of high reputation and even distinction. Felix' mother began giving her son music lessons of five minutes' duration when he was no more than a tiny lad. At the age of 7 he began piano lessons with the distinguished musician, Ludwig Berger, lessons in harmony with Goethe's friend, Carl Zelter, and was taught the violin by the noted musician, Carl Henning. At the same time his general education began under Heyse, father of the poet, to whom he owed his thorough classical training and his well-grounded scientific information. Felix and his sisters studied long under the direction of their teachers, beginning their work at five o'clock in the morning. At the age of 10 Felix entered the "Singakademie" as an alto. At 15 he began to receive piano lessons from the distinguished musician Moscheles. In addition to his music and scientific work, the boy devoted much time and application to drawing. In his 17th year he was ready to enter the University of Berlin.

3. School standing and progress. The boy's proficiency in Latin and Greek enabled him to prepare at 15 an accurate translation of Terence's *Andria* for Goethe's use, and this work later became a basis for the themes of two of his master-works, the music of Sophocles' *Antigone* and *Œdipus in Kolonos*. In drawing, Felix attained as an amateur a high degree of perfection. (See II 6 for progress in music.)

4. Friends and associates. Felix' elder sister, Fanny, was quite equal to her brother in the command of the piano; the two were inseparable companions, sharing each other's confidences, artistic aims, and ambitions. When the boy was 12 his teacher, Zelter, took him to Weimar for a two weeks' visit with Goethe, who was charmed with the young musician. This and subsequent visits made a deep and lasting impression on the young lad. Felix was a "wonder-child" in the best sense of the word, beautiful in body and spirit, the very image of health and happiness, eager and merry, remarkably gifted, and yet always modest. These qualities naturally attracted to him acquaintances and associates. Many distinguished visitors came to his home, and he frequently met eminent musicians, at home and on trips with his father.

5. Reading. No specific record.

6. Production and achievement. At the age of 9 Felix played the piano in a trio at a concert and was much applauded. In his 11th and 12th years he wrote from fifty to sixty complete movements, including pieces for the piano, violin, and organ, songs, and a cantata. Two years later, although his labors were interrupted by a journey to Switzerland and by great activity in other lines, he produced an extraordinary number of compositions. About this time began the "Sunday matinées" in the Mendelssohn home, to which a small circle of friends were invited. Here Felix' compositions were played, and the boy and his sister Fanny had an opportunity of hearing other people's judgment on their productions. So notable did the musical matinées become, that soon all musicians of distinction coming to Berlin requested to be admitted to them. When Felix was 14, the *English Quarterly Musical Magazine and Review* gave notice of a symphony of his composition, saying, "Its rich invention, unity of design, and attentive study of effect, promise much for his future works." When he was 15, his opera was rehearsed for the first time with an orchestra, and his old teacher, Zelter, proclaimed him "no longer an apprentice, but an independent member of the brotherhood of musicians." It was at this time that Moscheles became his teacher, and the latter soon pronounced his pupil "a phenomenon, already a mature artist." With untiring activity Felix continued to produce symphonies, pianoforte pieces, songs, operas, etc. Among his compositions at the age of 16 was the *Octet* for strings, *Opus 20,* "a masterpiece," its Scherzo being considered "the revealer of an absolutely new creative faculty."

7. Evidences of precocity. Even in his 8th year, Felix played the piano with extraordinary ability. He had a remarkably precocious power of musical production. (See also II 6.)

AI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 15 Mendelssohn matriculated at the University of Berlin, and during the next three years he attended lectures there, among them Hegel's on music, and Ritter's on geography, in which he took great interest. In addition to his regular work, he added continually to his list of musical compositions, superintended, at the age of 18, the production of his opera, *The Wedding of Comacho,* and rehearsed a chorus of sixteen voices in Bach's *Passion.* His first and greatest achievement in conductorship came at the age of 20, when he conducted and accompanied the performance of Bach's *Passion.* He made his first public appearance in England at the Philharmonic Concert, when, at the age of 20, he directed the performance of one of his earlier symphonies, which was most favorably received. The following year he was offered, but declined, the newly founded chair of music at the University of Berlin. He visited Italy, and astounded the Roman musicians by his improvisation; thereafter he spent some months in Paris, where he became known to the public in concerts. At 24 he was made director of the Music Festival at Düsseldorf, and at 26 accepted the position of conductor of the Gewandhaus Concerts in

Leipzig, "the highest position attainable in the German musical world." During this period he composed the overture to the *Hebrides, Walpurgis Night,* and the oratorio *St. Paul.*

AII IQ 155 (Rel. coeff. of data, .75)

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WOLFGANG AMADEUS MOZART (1756–1791)

A Celebrated Austrian Composer

AI IQ 150 AII IQ 155

I. *Family standing.* The Mozart family belonged originally to the artisan class. The grandfather was a bookbinder. The father, determined to rise out of the rank of his ancestors, studied law and also music; he became orchestral director in Salzburg and was the author of many musical compositions as well as a standard work on violin playing. The mother, a daughter of the steward of the convent of St. Gilgen, was a good woman, but in no way distinguished.

II. *Development to age 17.*

1. Interests. From before his 6th year, Mozart's sole absorbing interest was in music, and even the games he played had some musical element. Whatever he did was done wholeheartedly, but apparently he had few interests unrelated to music, so absorbing was his art. At the age of 10, however, he constructed mentally an imaginary kingdom of children in which he was king. He had a map of it drawn by a servant, according to specifications which he drew up. At about the same time, he planned to compose an opera to be presented by the children of Salzburg. At the age of 11 he became skilful in card games and a good fencer. Before he was 16, he had felt the pleasures and pains of a first love.

2. Education. When Mozart was between 3 and 4, he was taught by his father to play the clavier; he learned minuets and other pieces, which he soon played "with perfect correctness" and in exact time. At the age of 7 he began to receive instruction in singing by an Italian master, and at 14 he was studying and executing the most difficult counterpoint. Meanwhile his general education was not neglected. He studied arithmetic at the usual age, and evidences of a smattering of Latin appear in letters written at 13, while the correspondence of the following years shows that he had picked up some Italian in the course of his travels.

3. School standing and progress. (No specific record.)

4. Friends and associates. Mozart's associates were the musicians and the courtiers of Europe. Everyone liked the agreeable and talented little fellow and made much of him. His sister was his comrade and confidante.

5. Reading. Mozart mentions reading the *Arabian Nights* in Italian when he was 14.

6. Production and achievement. At the age of 5 Mozart first felt the impulse to produce, and the little pieces he composed were written down by his father. Three works are recorded before the age of 6: a Minuet and Trio for Clavier (Op. 1), a Minuet (Op. 2), and an Allegro (Op. 3). These are not particularly original, but they exhibit the rounded simple melody always characteristic of their composer.

When Mozart was 7 his first published work appeared—four sonatas for piano and violin, one of which showed especially remarkable taste. Between the ages of 7 and 15 he composed works for pianoforte and violin, pianoforte concertos, masses and church music, 18 symphonies, 2 operettas, and at the age of 14, an opera. When he was 12 his first operetta was performed. At 13 he received an appointment as grand ducal concert master (without salary), and in his first year of office he composed 20 numbers. At the age of 14 his first Italian opera was presented with great success. During these years his musical genius was so prolific that his fingers ached with the work of committing his ideas to paper. At 16 he received his first salary. Mozart was a brilliant executive artist as well as a great creative genius. His first musical tour was undertaken at the age of 6, when he visited Munich and met there with a very favorable reception. By his 8th year two more successful tours had been made, the first to Vienna and cities en route, the second through Germany. From his 8th to his 15th year Mozart visited Paris, London, The Hague, Amsterdam, and Vienna (for a second time). Two tours to Italy were carried out in his 16th and 17th years. Mozart's letters show the characteristics of an average pre-college student.

7. Evidences of precocity. When he was 3 or 4, Mozart began to invent musical ideas; impressed by seeing his sister play, he seated himself at the clavier and picked out thirds, to his great delight. Even at that early age he could retain musical passages that he had heard. On one occasion before his 5th birthday, he learned at half-past-nine at night and in half an hour a minuet and a trio, pieces requiring independence of the two hands and some musical comprehension. Before he was 6 Mozart had begun to insist upon the presence of real connoisseurs whenever he played. His first concerto the little musician wrote down himself; the written composition was a daub of ink, but there was real order in its music. The child exceeded expectations on his first musical tours, and he was received everywhere as a prodigy; he was an enthusiastic critic of the playing of others. He played charmingly, whether with one finger, with the keyboard covered, or in the usual way. At 7 his extraordinary sense of absolute pitch was discovered, as well as

remarkable skill with the violin and the organ, which he had never been taught. His repertoire included the naming of any note played at a distance, improvising in any key on the harpsichord or organ, and transposing to any key. He could supply the accompaniment to a singer without knowing the air in advance, or to a dictated melody without the use of the clavier. In his 10th year he was called by Tschudi, the instrument maker, "the most extraordinary performer in the world," and in the same year he was "investigated" in London by a lawyer who "reported proofs of the boy's decided inventive power." Compositions from the following year reveal remarkable ability in elaborating a theme. Locked up for a week by an incredulous archbishop, and required to prove his ability to write an oratorio without outside aid, Mozart (aged 11) achieved a brilliant triumph, a mature musical composition although written with blotted notes in a childish hand. At 14, in Rome, Mozart performed the astounding feat of transferring to paper the *Allegri Miserere,* after hearing it performed in the Sistine Chapel. In recognition of the powers of the gifted boy, the pope conferred upon him the order of the "Golden Spur"; and he was admitted to the Bolognese Philharmonic Society. Musical compositions continued to flow from his pen, and even the ablest critics united in praising him.

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From 17 to 26, when Mozart finally settled in Vienna, he led a nomadic existence, visiting Italy, returning to Salzburg, then spending some time in Munich, Augsburg, Mannheim, Paris; returning to Salzburg, and then again to Munich, Vienna, Augsburg, and finally Vienna. In spite of traveling, quarrels with patrons, and financial difficulties, Mozart managed to compose continually, and produced during this time an extraordinary number of works.

At 19 the opera *La Finta Giardiniera* was produced, and praised by a distinguished critic as showing wonderful genius, and indicating that Mozart would be the greatest composer that had ever lived. At this age the young lad was a skilled performer on the piano, violin, and viola, a ready composer in the most varied branches of music: sacred and secular vocal music; sonatas, trios, and concertos for the pianoforte; chamber music; and works for the organ. In addition he had studied musical theory. At 24 he composed his first true masterpiece, *Idomeneo.* Produced the following year, this was a pronounced success, deciding once for all Mozart's position as a dramatic composer. On his final settlement in Vienna, in addition to composing, the youth gave lessons and concerts, and performed in aristocratic homes. *Die Entführung aus dem Serail,* written at the emperor's command, and produced when Mozart was 26 and a month after its composer's marriage, was received with acclamation. Mozart's genius seemed to be continually nourished, rather than sapped, by his extraordinary fertility in production.

AII IQ 155 (Rel. coeff. of data, .75)

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ERNEST RENAN (1823–1892)

An Eminent French Writer, Orientalist, and Critic

AI IQ 150 AII IQ 160

I. *Family standing.* On the father's side, Renan's forebears were Breton sailors, courageously and stubbornly Republican in principle, and melancholy in temperament. It is not improbable that the father's death at sea was a suicide. On the mother's side, Renan was of Gascon blood, from a family of traders in Bordeaux, cheerful, religious folk, and Royalists in sympathy. From both lines of ancestry, Renan was a true child of the people.

II. *Development to age 17.*

1. Interests. Renan was early attracted (aged 6 or 7) by stories and legends told him by his mother, by some old announcements in Gothic letters, and by an odd tome of *Cantiques de Marseilles*, over which he mused interminably. He carried on discussions in politics with the house maid. Cognat, a schoolmate, says that at 16, Renan's prose style turned distinctly toward the romantic and away from the classical.

2. Education. Renan, at 9, entered, on a scholarship, the ecclesiastical school of his native town of Tréguier. At 15 he went to Paris, on a second scholarship, to enter the ecclesiastical training school of St. Nicholas-du-Chardonnet.

3. School standing and progress. From 9 to 15, Renan won first or second prize each year at Tréguier, and in the last year won the first prize in *each of nine subjects* taught in his school. At St. Nicholas-du-Chardonnet, after a period of home-sickness and misery, he finally won, at the age of 17, the coveted first place in his class.

4. Friends and associates. No records are preserved of intimate friends. Cognat, later abbé, was an admirer and a fellow student at St. Nicholas. Of Dupanloup, the director of the school, Renan wrote, "His is the most beautiful and the most lofty mind that I have so far known." In his youth Ernest greatly loved and admired his teachers, the priests at the College of Tréguier.

5. Reading. *La Morale en Action* ranked next to *Télémaque* in its influence on Renan's childhood. In Paris the youth (aged 16) was intoxicated by the works of Michelet, Hugo, and Lamartine. Bossuet and Fénélon were subjects of eager discussion.

6. Production and achievement. Year after year Renan carried away the first prize in Latin. Sometimes, as at Tréguier (aged 15), he won prizes in all his subjects. At 16 he wrote, among other works, a *Hymn to the Virgin.*

7. Evidences of precocity. At the age of 6, Renan announced his ambition to become a writer of books. He won a scholarship for the college of Tréguier at 9 years of age. (See also II, 1, 3, and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17, enchanted by the prose of Michelet, Renan refused to imitate further the model style of Dupanloup, the distinguished director of the school. At 19 he was wonderfully moved by his studies in philosophy at St. Sulpice; the works of the Germans, Kant, Hegel, and Herder, especially impressed him. At 21, having finally accepted the tonsure and minor orders, he turned to the study of comparative philology, devoting himself primarily to the Semitic languages. At 24 he received the Prix Volney (1200 francs) for his *Histoire général et systeme comparé des langues semetiques.* A year later, at 25, his *Study of all Greek Languages in the West of Europe* was crowned by the Academy of Inscriptions and Belles-Lettres.

AII IQ 160 (Rel. coeff. of data, .75)

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GEORGE SAND (AURORE DUPIN) (1804–1876)

A French Novelist

AI IQ 150 AII IQ 150

I. *Family standing.* Aurore Dupin was descended on her father's side from Augustus of Saxony, and through him related to the royal houses of Germany and France. Her father was a brilliant, adventurous soldier, with the nature of an artist. Her mother, a milliner, the daughter of a bird-seller, was, during her married life, a respectable, active, industrious woman, as she was always a clever one and, in her own way, something of an artist and a poet.

II. *Development to age 17.*

1. Interests. Aurore's first recorded interest was in hearing and narrating poetical or fanciful tales. She attempted to satisfy a desire for strange mental experiences by conjuring up hallucinations, but, try as she would, she was never quite successful. She was devoted to reading, to composing poems, and to wandering about the hillsides playing with the country children, or listening to the herdsmen's

ghost stories. When the little girl's mother read aloud to her, so vivid was the child's imagination, that scenes appeared to her as if really pictured on the fire screen by her side.

At the convent school Aurore (aged 16) had a mystic vision which deeply impressed her, and in consequence she thought of becoming a nun; but her confessor advised against this course. She was dreamy, meditative, and passionate, with a face strangely fascinating and expressive of strong intellectual enthusiasms. The outdoor country life, the solitude, delighted her. But she became known as an eccentric.

2. Education. Aurore's first three years were spent with her parents in their Paris lodging. At the age of 4, and later, she travelled with the family, during the campaign, to Spain, and there she was a great favorite of her father's general, Murat. The little girl was given in jest the uniform of an aide-de-camp. At her father's death, when she was no more than 4, little Aurore was left to the upbringing of her mother, the milliner, and her grandmother, the *grande dame*. Toward the age of 5 she learned to write, and at 7 or 8 she could spell, but not correctly, for, indeed, she never acquired this art. By learning to write by herself, she learned to understand what she read. When she was about 9 years old, she was taught music by her grandmother, by whom the principles were made so clear that "it did not seem like swallowing the ocean." She later believed that she would have become a musician if she had devoted herself to this art, as she had aptitude for it and an appreciation of the beautiful. The only studies that really pleased Aurore at this time were history and geography, music and literature. At 13 she began to receive lessons from her father's former tutor, an eccentric pedant, who encouraged her independent ways. The conflict between plebeian mother and aristocratic grandmother sharpened the young girl's discrimination of the elements of character, increased her sympathies, and developed especially a keen understanding of the attitudes of the oppressed classes. On one occasion the grandmother, in fear of death, disclosed to her granddaughter all her grievances against her daughter-in-law. "It was like a nightmare," wrote Aurore. Aurore spent her early teens in a convent. On her removal thence she continued her studies at home, including in her course English, Italian, some Latin, and the natural sciences. A young man of the neighborhood instructed her in osteology.

Aurore's attitude toward religion was in keeping with her erratic and passionate nature. In early years she was not taught religion, but rather permitted to believe, or reject, as she would, the miracles of antiquity. At the time of receiving her first communion at the age of 12 or 13, she learned the catechism like a parrot, without seeking to understand it, and firmly resolved not to retain or believe a word of it. The next three years, living in the convent of the Augustinians, she became for a time very religious; then she lost her enthusiasm for religious observance. But throughout these years she observed the nuns to such good purpose that she was able later to use them as characters in her novels. Her grandmother,

fearing the fanaticism of the priests, took her away from the convent at the age of 16.

3. School standing and progress. (See II 2.)

4. Friends and associates. (See II 1, 2, and 6.) The members of the family, the nuns, and her fellow pupils in the convent, her tutors, and the neighbors were Aurore's associates, but her grandmother and her mother exerted a greater influence upon her than any others.

5. Reading. At an early age (7 to 8) the little girl read books of sacred history and, probably, countless other works. At 8 or 9 she found at Nohant the tales of Madame d'Aulnoy and of Perrault, which were her delight for five or six years. At this time she began to read, by herself, an abridged edition of Greek mythology, which gave her great enjoyment because it resembled fairy tales in some respects. At about the age of 12, she read *Jerusalem Delivered* and the *Iliad;* the poems of Tasso, *Attala,* and *Paul and Virginia* were her favorite works. Her reading at 16 included philosophy, poetry, and ethics; she read Locke, Condillac, Montesquieu, Bossuet, Pascal, Montaigne, and Rousseau (whom she considered apart from the others); and she devoured the books of the moralists and poets, La Bruyère, Pope, Milton, Dante, Virgil, and Shakespeare. All this reading was too much for her sensibilities, and excited her brain. After reading Chateaubriand's *René,* she was disgusted with life and attempted to commit suicide, but she was hindered in her design by the good sense of her horse who refused to become a party to her scheme for drowning steed and rider. She read Bacon, Aristotle, Leibnitz, the novels of Madame de Genlis and of Van der Welde, as well as Chateaubriand's *Gènie du Christianisme.*

6. Production and achievement. At 7 or 8 Aurore composed stories that never ended, and acted them with her sister or another little companion. Her compositions were a mixture of everything that entered her head: mythology and religion combined: the three Graces, the nine Muses, Mother Goose, the angels, the Virgin, the good fairy, punchinellos and magicians, imps of the theater and saints of the church. Finding, at the age of 10 or a little later, that her grandmother did not compare her résumés of the books she had read with the originals, she launched forth more and more into personal appreciations, without worrying about the opinion of the authors; finally, she began to find opportunities for slipping in descriptions, and original embellishments. Toward the age of 12, she tried her hand at entirely original descriptive pieces; these her grandmother declared were masterpieces, but her mother only laughed at her fine phrases. At 12 or 13 she began to compose a poem which reached at least 1,000 cantos, and which, although none of it was written down, became a living part of the little girl's existence. So absorbed did she become in her fantasy that she finally erected an altar to the God-like hero of her creation. At 14 Aurore directed and presented from memory Molière's *Malade Imaginaire* which delighted the nuns, who were quite ignorant of the original author. Before she was 16 the young author believed that she had discovered the middle term between

free prose and regular verse, rhyming prose, and she composed many verses in this new medium. At the same time she wrote a pastoral poem and her first prose narrative, a religious novel, one hundred pages long. The verses, however, pleased her more than the prose.

7. Evidences of precocity. Little Aurore learned to walk at ten months; she began to talk rather late, but as soon as she had begun to say a few words, she learned many more very quickly. Before she was 3, she would amuse herself, while penned in by four chairs, telling interminable stories in which were said to figure few bad people and no serious troubles. Perhaps these faults might be pardoned so young an author, but the critical mother did not hesitate to say that the tales were most tiresome on account of their length and the development given the digressions. (See also II 1, 2, 5, and 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Already independent in thought and action at the age of 17, Aurore was developing her literary and critical bent by reading Plutarch, Livy, Herodotus, Tacitus, and Rousseau: of these she was especially devoted to Rousseau, whose philosophy fascinated her. On the death of her grandmother, Aurore was taken by her mother to Paris, but she found the life they led there intolerable. Rather more to escape the situation than from love, she married, at 18, M. Dudevant. With such a beginning, misunderstanding between husband and wife gradually developed in spite of the birth of two children. Just after she was 21, Aurore began a platonic friendship with Aurelien de Sèze which lasted four years. When Mme. Dudevant was 26 the family visited the Pyrenees, Mont d'Or, and Paris, but these travels, even in conjunction with the birth of their second child, could not close the breach widening between the ordinary man and his superior wife. At 27 Mme. Dudevant separated from her husband and left for Paris with the intention of entering upon a literary career.

AII IQ 150 (Rel. coeff. of data, .75)

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FRIEDRICH ERNST DANIEL SCHLEIERMACHER (1768–1834)

A Celebrated German Philosopher and Theologian

AI IQ 150 AII IQ 145

I. *Family standing.* Schleiermacher's father and both of his grandfathers were pastors of the Reformed Church. The mother was

devoted to her children, and supervised their education during the frequent absences of her husband.

II. *Development to age 17.*

1. Interests. As recorded, Schleiermacher's interests were chiefly religious, scholastic, and, after the age of 16, literary and philosophical. It was between the ages of 16 and 18 that Schleiermacher determined to make a thorough study of theology.

2. Education. Schleiermacher's early home atmosphere was orthodox and evangelical. His earliest training was received from his mother, apparently a born teacher, and before he had reached the age of 4, young Fritz had learned to read. From his 6th until his 10th year he attended school in Breslau, then, following a period of instruction at home, where certain pressure was brought to bear in an attempt to overcome his conceit, he was sent to the Pless school, where he remained until he was 13. From 13 to 14 he attended the boarding school of a religious sect, and this was followed by two years at the excellent Moravian school at Niesky. At 16 he entered the Barby Seminary, the Moravian university, and remained there two years.

3. School standing and progress. Because, at his first school, the boy, aged 5 to 9, acquired the elements of Latin very rapidly and committed the vocables to memory with unusual ease ("the half of which I had usually forgotten the next day"), he passed quickly through the lower forms, and gained a reputation for cleverness. He became somewhat conceited from being above many older and larger boys, but his pride was humbled when a Latin author was substituted for the grammar, for he discovered that, whereas the words could be easily translated, the meaning was less readily grasped. He became confused, and then, seeing that the other boys were not thus disturbed, he decided that his own cleverness was spurious. From this time he was often conscious of the very fragmentary character of his knowledge, and he was frightened when he discovered great lacunae which he supposed did not exist in the knowledge of others.

In a letter to her brother, written when the boy was 6, his mother reported that the pastor was much pleased with the lad's attentiveness and distinct answers in religious instruction. At 7 (?) Schleiermacher was the smallest boy in school, but even then was at the head of his class (the third form). From the age of 5 to 7 his weekly report of lessons and deportment read once "fair"; otherwise it was uniformly "good," "industrious," "very good," "very industrious." At the age of 9, 10, and perhaps 11, he conceived a dislike for the sciences; he began to hate languages, and he felt that he had no aptitude for them. In spite of this when he was 11 he impressed the Pless head master by his comprehension and industry. In a letter from his mother, we read that her son would have been able to enter the university at 14, if he had been left at school in Breslau, "so quickly does he progress in everything." Inspired by a tutor, Schleiermacher became, between 11 and 13, enthusiastically interested in classical languages, and he rapidly lost his earlier distaste. He jeal-

ously guarded his reputation for cleverness, and kept the flame of his ambition burning brightly by reading tales of celebrated men. When near the age of 13, he developed a strange skepticism, conceiving the idea that all recorded history and the ancient authors were supposititious; he told this theory to no one, but determined to verify it later by his own investigations. A second religious struggle occurred at this time, aroused by a consideration of the doctrine of the natural corruption of man. At 15, and by his own desire, Schleiermacher was confirmed. At 16 he entered the Moravian university, being unusually young for this promotion.

4. Friends and associates. Schleiermacher's teachers, with one accord, interested themselves in him and gave him assistance and encouragement. His inseparable friend and classmate at the Moravian school became later a Moravian bishop.

5. Reading. At an early age, Schleiermacher read *The Children's Friend*, a book of knowledge. At 14 with his friend, Von Albertini, at the Moravian school Schleiermacher fell upon the Greek classics and devoured them rapidly, with the scant aid of an inadequate dictionary and a grammar. The two boys attacked and vanquished the Greek Old Testament in a similar manner. At 16 Schleiermacher was reading a critical literary journal, and between his 17th and his 19th year he and his friends read Kant's *Prolegomena*.

6. Production and achievement. "A drawing" (executed at 9) was a birthday gift to his mother. At 10 or 11 Schleiermacher taught his little brother to read and to reckon. In a group of essays written at 14, the lad incorporated quotations from Greek classics not included in the assigned readings; these he had read out of school hours. Letters to his sister telling of his interests and activities are preserved, the first written when he was 14¾.

7. Evidences of precocity. Schleiermacher learned to read at the age of 4. When nearly 5 he began to attend school, where he quickly won a reputation for cleverness. When he was 6 his mother wrote that he gave her much hope, as he had both a good heart and a good head. At 10 or 11 little Fritz was worried over such problems as the doctrine of eternal punishment and the atonement.

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* The narrow spiritual atmosphere of the theological seminary, which entirely lacked facilities for gaining acquaintance with modern critical works, so reacted upon Schleiermacher that at 18 he was again assailed by religious doubt. A little later he left the seminary to go to the University of Halle. Here he found a new attitude and (to him) strange customs, but he strove to overcome his shyness and pursued his studies in French, English, Greek, and religious philosophy with more than customary zeal. After passing his university examination at 21⅔, he was appointed tutor to the family of a Prussian count with whom he spent three happy years. Although he was kept busy with his preceptorial duties, he also preached a number of sermons. At 24 he left the count's service and became a member of a Berlin seminary for college

teachers; he had also a teaching position. Before he was 26 he had accepted, in addition to his other duties, an appointment as curate at Landsberg.

AII IQ 145 (Rel. coeff. of data, .75)

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WALTER SCOTT (1771–1832)

A Famous Scottish Novelist and Poet

AI IQ 150 AII IQ 155

I. *Family standing.* The Scott family belonged to the Scottish gentry. Walter's grandfather was a successful cattle-raiser who acquired a considerable fortune; his father, a man of practical, though untaught, philosophy, was a lawyer. The poet's mother was a woman of culture and imagination, who had had a better education than most of the Scottish women of her day. She was the daughter of Dr. Rutherford, professor of medicine in the University of Edinburgh, pupil of Boerhaave, and a distinguished member of a distinguished family.

II. *Development to age 17.*

1. Interests. During his childhood and boyhood Scott suffered from periods of illness, and, for this reason, his interests were turned from the sports in which he was unable to join to quiet pursuits. The reading of Scottish history and ballads soon grew to be his passion. At school (aged 7 to 11) he won popularity and applause for his stories, and, at 14, he and his friend Irving started the practice, which they maintained for three years, of composing martial and miraculous legends during holidays for each other's enjoyment.

At 16, during a serious illness followed by nervous depression, Scott's only resources were reading, chess playing, and the quiet sport of arranging campaigns of pebbles upon his bed, and so fighting through Vertot's *Knights of Malta* and other works of the kind. During his later convalescence, it was his delight to take long walks or rides, especially to the scenes of historical events; he preferred a battlefield to a beautiful view, and at each historic spot he gathered some souvenir. Another consequence of his early ill health was that he came to love solitude, utilizing it for the exercise of his invention in tale and ballad. By the age of 13, a love of natural objects had been aroused which was never abated.

Scott delighted in the theater; an interest which had its birth in his first visit there at the age of 4 to see *As You Like It,* which ever after remained a vivid picture in his mind. In spite of the efforts of his teachers, Scott was unable to master the technique of music and painting, but his interest in literature grew, and at 15, he used his earnings to learn Italian, so that he might read the literary treasures in that language.

2. Education. At 3 or 4 Scott learned to read in a dame's school, with occasional supplementary lessons from an aunt. An aged grandmother told young Walter many a Highland tale and legend. After a few private lessons in Latin, he was sent in his 8th year to the grammar school at Edinburgh; in addition, he received lessons from a tutor at home. At 11 he was advanced to the rector's class where he read Caesar, Livy and Sallust, Virgil, Horace, and Terence. At 13 the lad's health compelled another retirement to the country, and there he attended the country grammar school, receiving, also, private instruction from the schoolmaster, who was an excellent classical scholar. He entered college at 14, and studied a little philosophy and less Greek, but his courses there were frequently interrupted by ill health. On resuming his studies after a break of this kind, he took up mathematics, ethics, moral philosophy, history, and law; unfortunately the course was too brief for more than a smattering of each to be obtained. At 15 Scott was apprenticed to his father to learn the business of the law.

3. School standing and progress. At school Scott was behind his class, and so fell into the habit of doing inferior work. His master was annoyed by this, for he recognized the boy's ability. On one occasion Scott succeeded in winning a place at the top of the class by a ruse; and, from that time, he maintained his high position, being encouraged to strive to excel by the rector's statement that others might understand the Latin better, but Scott's understanding of the meaning was seldom exceeded. At the country school Scott, at 13, acted as usher and heard the lower classes recite their lessons. At the public examination he was chosen to recite a Latin speech. And yet his memory, admirable for a passage of poetry or a ballad, was most fickle in retaining names, dates, and historical technicalities. At college, in his 15th year, he refused to study Greek because the other members of his class were better prepared for the class work than he. In ethics he progressed to the satisfaction of his instructor, who selected him as one of a small group to read original essays before the principal.

4. Friends and associates. An early friend was an old soldier who told Scott (aged 7) long tales of his campaigns. A little later the friendship was somewhat strained by a disagreement in regard to Burgoyne's chances of success—it was the boy's prediction which proved to be correct. Scott's most intimate friend from childhood was John Irving, later a "writer to the Signet."

5. Reading. Two or three old books were read to Scott when he was between 4 and 7 years of age; of these, *Automathes* and Ramsay's *Tea-table Miscellany* were his favorites; to these were

added later a volume of Josephus' *Wars of the Jews.* After his aunt had read these works aloud to him a number of times, he was able to repeat long passages from memory. The *Ballad of Hardyknute* he mastered before he was 6; and so delighted was he by its rhythm that he shouted it all about the house. *Pilgrim's Progress,* Gesner's *Death of Abel,* and Rowe's letters were allowed for Sunday reading. While at home on account of his lameness, Scott read to his mother in Pope's *Homer* and got by heart, without intention, the passages which pleased him most, later reciting them often, especially in solitary hours. He was very fond of the penny Chap-books containing little humorous tales in prose. At the age of 13 Walter made the acquaintance of Tasso's *Jerusalem Delivered* and Percy's *Reliques;* the latter became his constant companion, and was read and reread frequently. At about the same time the boy read the works of MacKenzie, Richardson, and the other novelists. Soon he extended his reading to include everything upon which he could lay hands. When an elderly friend opened his library to him, the boy found Ossian and Spenser. The latter he "could have read forever," and the number of Spenser's verses he retained in memory was marvellous. At the age of 13, when in the country, Scott had access to a circulating library, a subscription library, and some private book shelves. "Few ever read so much or to so little purpose." During his law apprenticeship, Scott continued to read anything and everything, except novels of the lighter sort, which he detested. At 16 he was reading even more widely, including in his study the romantic prose writers of Italy, France, and England, and, especially during his illness, historical works dealing with military events.

6. Production and achievement. Before he was 11 Walter began writing down all the ballads he could gather together, and his collection soon filled six little volumes. In his 12th year, encouraged by the rector's praise, he wrote translations from the classics, and his lines were considered the second best on the occasion upon which they were presented; in the following year he wrote a number of poems, of which two are preserved; and at 15 he wrote *The Conquest of Granada* in four books, each book amounting to about 400 lines.

7. Evidences of precocity. The following story is told by Mrs. Cockburn, who was distantly related to Scott's mother: "I last night supped in Mr. Walter Scott's. *He has the most extraordinary genius of a boy I ever saw.* He was reading a poem to his mother when I went in. I made him read on; it was the description of a shipwreck. His passion rose with the storm. He lifted his eyes and hands. 'There's the mast gone,' says he, 'crash it goes!—they will all perish!' I preferred a little chat, and asked his opinion of Milton and other books he was reading, which he gave me wonderfully. One of his observations was, 'How strange it is that Adam, just new come into the world, should know everything—that must be the poet's fancy,' says he. But when he was told he was created perfect by God, he instantly yielded. When taken to bed last night, he told his aunt he liked that lady. 'What lady?' says she. 'Why, Mrs.

Cockburn; for I think she is a virtuoso like myself.' 'Dear Walter,' says Aunt Jenny, 'what is a virtuoso?' 'Don't ye know? *Why, it's one who wishes and will know everything.*'"

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Scott's legal apprenticeship lasted to his 19th year. During the last two years of it the youth (aged 17 to 19) was a member of one or another literary society, where, although not a good speaker, he always created a favorable impression. A sense of inferiority in comparison with his fellows, due to his physical infirmity, led him from people to books, especially philosophical works. From 19 to 21 Scott read for the bar, and having passed with credit the "ordeals" in his 22nd year, he commenced to practice at the law courts, still, however, giving a fair proportion of his time to the study of German, to which he was devoted. In the following summer, a visit to the Highlands provided material later incorporated in his early poems and prose romances. At 23 he was appointed curator of the Advocates' Library. Shortly after he published his first series of translations of German ballads.

AII IQ 155 (Rel. coeff. of data, .82)

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WILLIAM WORDSWORTH (1770–1850)

A Celebrated English Poet

AI IQ 150 AII IQ 155

I. *Family standing.* The Wordsworths had been for generations yeomen or farming proprietors, people of some importance in the community. The father, a man of intelligence and energy, was an attorney and agent of Lord Lonsdale. The maternal grandfather was a mercer of a narrow unyielding clan. The mother personified for her son intuitive wisdom, and she was the first to foresee his genius.

II. *Development to age 17.*

1. Interests. William was always fond of out-of-door activity. As a mere infant he rode over the hills with his father; he played out-of-door games with his sister; and he engaged with the other boys in trapping birds, hunting eggs, exploring for nuts, flying kites, fishing, and skating. He also loved to listen to the tales and legends of the old dame with whom he boarded. At 10 he first began to hold communion with nature, in that mystic bond which he held throughout his life, and before he was 15, he seems to have recognized his calling as a poet and interpreter of nature.

2. Education. After attending a dame's school, William entered the Cockermouth school, where he began the study of Latin. The work of committing to memory long passages of Shakespeare, Milton, and Spenser proved of infinitely greater value to him than the regular school instruction. At the age of 8, after his mother's death, the boy was sent to the free grammar school at Hawkshead, which he attended thereafter for six years. From 14 to 18, in school at Hawkshead, Wordsworth studied mathematics and the elements of Greek and Latin, which he learned very rapidly, from an excellent master.

3. School standing and progress. No specific record is preserved beyond the evidence of the lines in which he refers to himself as the boy "beyond his age advanced, in sympathy with mature minds."

4. Friends and associates. In spite of the perverse and obstinate strain in his nature, Wordsworth, as a boy, was gentle, social, and fond of play with his fellows; his friends included high and low in all the countryside. His sister, his warm friend and admirer, thought William the cleverest of her brothers, with Christopher, later eminent as scholar and pedagogue, very near in ability, though not so near in affection.

5. Reading. Left much at liberty in his school days, Wordsworth (aged 8 to 14) read Fielding's works, *Don Quixote, Gil Blas,* Swift, Robin Hood's exploits, *The Adventures of Jack the Giant Killer,* and *Fortunatus.* In the holidays of this period he spoiled his fishing ventures by attending to his book and forgetting his line. From the age of 14 to 18 he read voraciously, romances, legends, fictions of love, and tales of warlike adventure. At school he became familiar with some English poets, especially Goldsmith and Gray, many of whose poems he learned by heart. He was an enthusiastic admirer of Ovid; Burns was also a favorite; parts of the *Iliad* he read aloud to his sister.

6. Production and achievement. Wordsworth's first verses (written when he was 14) were a task imposed by his schoolmaster. The subject was "The Summer Vacation" to which the poet added "The Return to School." At 15 the boy was called upon, among others, to write verses for a school celebration. His lines, 112 in number, written in the manner of Pope, were much admired. At 16 William composed a long poem about his own adventures, of which a part, perhaps in a revised form, serves as the introduction to his writings. The same year he wrote the lines beginning, "Calm is all nature as a resting wheel." Before he was 17 his first printed poem had appeared in the *European Magazine.*

7. Evidences of precocity. Wordsworth's mother foresaw that her William would be remarkable, either for good or for evil. (See also II 6.)

AI IQ 150 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Young Wordsworth spent four years at Cambridge, graduating B.A. at the age of 21. Neither the poet nor the university can be said to have been benefited by his

attendance, for the one worked aimlessly, except perhaps at Italian, while the other failed to inspire her pupil as nature, his earlier teacher, had done. During his third vacation Wordsworth made a tour through France and Switzerland, impressions of which were published some two years later. On the completion of his university career, Wordsworth went to London, still without purpose, and shortly after (aged 21), to France, whither sympathy with Revolutionary ideals had attracted him. Here he had a love affair with the daughter of a royalist family, and he became a friend of a French officer, through whom he learned to understand the causes of the Revolution and to trace them to the fountain-springs of human nature. With England's declaration of war, Wordsworth took himself away from France and, still undecided as to a career, returned to his family. Although disappointed by the deeds of the young Republic, the poet maintained his revolutionary principles and his poem *Guilt and Sorrow* (published when its author was 24) reflects his own views, colored by the influence of Godwin. At 25 Wordsworth met Coleridge, who was convinced of the young poet's genius. He commenced his dramatic poem *The Borderers* the same year.

AII IQ 155 (Rel. coeff. of data, .75)

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MARIE JEAN ANTOINE NICOLAS CARITAT, MARQUIS DE CONDORCET (1743–1794)

A Celebrated French Philosopher and Mathematician

AI IQ 155 AII IQ 165

I. *Family standing.* The paternal ancestors of Condorcet were noblemen, long established in Dauphiny, near Lyons. Condorcet's father was a cavalry captain, and an uncle and several other collateral ancestors achieved the highest distinction as prelates in the Catholic church. Condorcet's mother is mentioned only as having been "very devout."

II. *Development to age 17.*

1. Interests. No interests are recorded, apart from studies.

2. Education. At his birth Condorcet was dedicated by his mother to the Virgin, and for the first eight years of his life was dressed in girl's clothes—a circumstance which not only hindered his physical development by interdicting exercise, but prevented his entering the public schools, where his eccentricity of dress would naturally have excited derision. At 11, however, he was

rescued from his peculiar plight by an uncle who placed him in the Jesuit school at Rheims, where he continued for four years. At the age of 15 he commenced his mathematical studies in the College of Navarre at Paris.

3. School standing and progress. Once enrolled in school, Condorcet's progress appears to have been rapid. At 13 he carried off the second prize in the Jesuit school at Rheims; and ten months after entering the College of Navarre he maintained a very difficult analytical thesis with such distinction that Clarant, D'Alembert, and Fontaine, who examined him, hailed him as a future member of the Academy.

4. Friends and associates. (No record.)

5. Reading. (No specific record.)

6. Production and achievement. (See II 3.)

7. Evidences of precocity. (See II 3.)

AI IQ 155 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* When Condorcet left college at 17, he was already a philosophical thinker, reflecting on such problems as the value to man of justice and virtue. He decided that, in order not to destroy his natural sensibility, he must strengthen his own understanding of the meaning of ethical values. Accordingly he renounced all killing, even of insects, provided they were not harmful. Condorcet's first work was *An Essay on the Integral Calculus,* which he presented when he was 22. D'Alembert said: "This work indicates great talent," and Lagrange: "It opens for us a new field for the perfection of the Integral Calculus." At 25 Condorcet might have entered the Academy, but the reception was postponed for a year owing to the objections of his parents, who opposed their son's plan to embrace a scientific career. Condorcet's talents turned in the direction of social economy and politics. His own statement of the reason for abandoning a field where distinction and fame awaited him was that "it seems cold to work only for vainglory, when one desires to be working for the public good."

AII IQ 165 (Rel. coeff. of data, .75)

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GEORGES LÉOPOLD CHRÉTIEN FRÉDÉRIC DOGEBERT CUVIER (1769–1832)

A Celebrated French Naturalist, the Founder of the Science of Comparative Anatomy

AI IQ 155 AII IQ 160

I. *Family standing.* Cuvier's father so distinguished himself as a member of a Swiss regiment in the service of France that he received the Order of Merit. After forty years of service, he retired on a

small pension to Montbeliard, where he was afterward appointed commandant of artillery. Cuvier's mother was an excellent and gifted woman, who held throughout her life the devoted affection of her distinguished son.

II. *Development to age 17.*

1. Interests. "The history of mankind was, from the earliest period of his [Cuvier's] life, a subject of the most indefatigable application; and long lists of sovereigns, princes, and the driest chronological facts once arranged in his memory were never forgotten." The youth delighted in reducing maps to a very small scale, which, when completed, were given to his companions. "When his mother drove him from study he entered with equal ardor into boyish sports, and was foremost in all youthful recreations." His taste for natural history was brought to light by acquaintance with a Gesner, with colored plates, in the school library, and by careful examination of a complete copy of Buffon belonging to a relative, to whom on this account young Cuvier made frequent visits. By the time he was 12 years old the youth was as familiar with animals and birds as a first-rate naturalist. He copied the plates of Gesner's work, and colored them according to the printed descriptions, either with paint or pieces of silk. At Stuttgart Academy, he chose the study of "administration" because it afforded him many opportunities for pursuing natural history, for botanizing, and for visiting collections. He profited by all these opportunities. "In his walks he collected a very considerable herbarium; and, during his hours of recreation, he drew and colored an immense number of insects, birds, and plants with the most surprising correctness and fidelity." He is said to have launched upon the scientific study of natural history entirely upon his own initiative and without any assistance. "During a vacation Cuvier made an excursion into the Alps and came back with a report accompanied by a large number of drawings, not only along the line of natural science, but also of different machines he had seen along the way."

2. Education. Cuvier's mother devoted herself to the care of her son's frail body and to the development of his unusual mind. She guided him in his religious duties, taught him to read fluently at the age of 4 years, took him every morning to an elementary school, and, although herself ignorant of Latin, she made him repeat his lessons to her so scrupulously that he was always better prepared with his tasks than was any other boy at school. Her son studied drawing under her inspection, and, when he advanced in the art beyond the limits of her teaching, his progress was superintended by one of his relatives, an architect. At 10 Cuvier was placed in a high school, where, in a four years' course, he studied all of the subjects taught, including rhetoric. Because he was destined for the church, he hoped to enter the free school at Tübingen where preparation was afforded for the theological course. Owing to a peculiar chance (see II 3) Cuvier was not recommended for Tübingen, but, under the patronage of the Duke of Würtemberg, he was sent instead to the

Acadèmie Caroline in Stuttgart, which he attended for four years (aged 14 to 19), studying "all that was taught in the highest classes"—mathematics, law, medicine, administration, tactics, commerce, etc. During the first year he took the general philosophical course; for the second he chose the study of administration (which in Germany included practical and elementary law, finance, police, agriculture, technology, etc.).

3. School standing and progress. Before he was 10 young Cuvier had passed through all of the exercises of his first school, repeating the usual catechisms, the psalms of David, the sonnets of Drelincourt, etc., with the utmost facility. In his second school (aged 10 to 14) he had no difficulty in acquiring Latin and Greek; and he was constantly at the head of the classes in history, geography, and mathematics. "The chief of the *Gymnase* at Montbeliard, who had never forgiven the young Cuvier for some childish tricks, changed his destiny by placing his composition in the third rank, when the pupils presented their themes for places. George Cuvier felt that his production was equally good with those which had hitherto been judged worthy of the first rank, and, at the important moment, when his station at college depended on his success, he was, for no conscious fault, kept back." He became disgusted at this injustice and gave up all thoughts of Tübingen.

When he entered the academy in Stuttgart he was only 14; but, "in consequence of the preparation he had undergone," he was able to take his place among the most celebrated students of the academy. During the four years' course in the academy, Cuvier obtained various prizes and the Order of Chevalerie, an honor granted to not more than five or six out of four hundred pupils. At 15 years of age, nine months after his arrival at Stuttgart, Cuvier bore off the prize for the German language, although he had been entirely ignorant of this language when he entered the academy.

4. Friends and associates. The Princess of Würtemberg recommended Cuvier to the attention of her brother, the Duke, who, after interviewing the youth and examining his drawings, took him under his special favor and educated him. At Stuttgart, Cuvier was associated with Hartmann, later an entomologist, Marschall, who became a diplomat, and Leypold, who was afterward a high public official of Würtemberg.

5. Reading. Cuvier's mother, by constantly furnishing her son with the best works on history and general literature, "nurtured that passion for reading, that ardent desire for knowledge, which became the principal spring of his intellectual existence." The boy's love for reading became so great even before he was 14 that his mother, feared the effect of so much application to sedentary pursuits, and forced him to seek other employments. From his 12th or 13th year he was never without a volume of Gesner in his pocket. Frequently he had to be roused from the pages of his favorite work to take his place in the class reading Cicero and Virgil. During the Stuttgart years Cuvier frequently read over Linnaeus, Reinhart, Mur, and Fabricius.

6. Production and achievement (see II 1). At the age of 14, Cuvier "chose a certain number of his schoolfellows, and constituted them into an academy, of which he was appointed president. He gave the regulations, and fixed the meetings for every Thursday at a stated hour, and, seated on his bed, and placing his companions round a table, he ordered that some work should be read, which treated either of natural history, philosophy, history, or travels. The merits of the book were then discussed, after which the youthful president summed up the whole, and pronounced a sort of judgment on the matter contained in it, which judgment was always *strictly* adopted by his disciples." At 14 Cuvier was remarkable for his declamatory powers, an exhibition of which, given on the occasion of the anniversary fête of Duke Charles, astonished the whole audience. At Stuttgart, Cuvier again founded a special society for the study of natural science, and again he became director and president. He and his fellow members "collected everything they could find in the vicinity in the line of plants and insects. They read treatises on physical and natural history, and Cuvier made decorations—a picture of Linnaeus in the center of a cross, each arm of which represented some phase of natural science. He, himself, gave out these decorations whenever a particular dissertation pleased him." Cuvier and his associates collected and classified 800 kinds of insects, using Linnaeus and Fabricius as guides.

7. Evidences of precocity (see II 1). While still a child, Cuvier showed a most extraordinary gift of memory; he retained everything he saw and read, and it is said that this remarkable ability never failed in any part of his career. "It was often said that he never forgot anything. His thirst for knowledge and his ability to do intellectual work was also boundless." In addition to these qualities, he could, by his remarkable talent for drawing, reproduce any object that met his eye. Versatility of talent, including remarkable conversational powers, distinguished young Cuvier in his earliest years (see II 1).

AI IQ 155 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* On leaving Stuttgart, just before his 19th birthday. Cuvier was appointed tutor to the family of Count d'Héricy. At this time the young teacher, in addition to variety and depth of knowledge, already possessed perseverance, love of labor, depth of reflection, and uprightness of character. While with the D'Héricy family, he acquired the manners of the best society and became acquainted with some of the most remarkable men of his day. He continued his favorite study of zoölogy: a visit to the sea induced the study of marine animals; the discovery of a fossil led to the comparison of living and ancient species; and a study of *Mollusca* influenced him in the development of his views of the whole animal kingdom. Linnaeus had made the class of Vermes to comprehend organisms of widely diverse degrees of complexity. Cuvier examined these varieties, grouped them, and classed them according to their natural affinities. (His extended work on this

subject was published when he was 29.) In the neighboring town of Valmont he organized a society for the discussion of agriculture and here he met Tessier, the author of the articles on agriculture in the *Encyclopedie Mèthodique,* who had escaped in disguise from the Terror in Paris.

Through Tessier, Cuvier entered into correspondence with the greatest savants of the day, including St. Hilaire, Lamèthrie, and Olivier. Through their influence and by reason of the reputation he had won through published scientific memoirs, Cuvier at 26 was appointed professor at the school of the Panthéon in Paris.

AII IQ 160 (Rel. coeff. of data, .75)

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DAVID HUME (1711–1778)

A Famous Scottish Philosopher and Historian

AI IQ 155 AII IQ 160

I. *Family standing.* On both sides of the house Hume's ancestry was Scottish. A distinguished paternal ancestor was Lord Home of Douglas, who fought with the great Douglas in the Continental wars and was killed at the battle of Verneuil. The philosopher's father, Joseph Hume, a member of the Faculty of Advocates, and in his later years a retired country gentleman, was "a man of parts." Unfortunately for his son's early training, he died while David was still an infant. The mother, whose father was Lord President of the Court of Sessions and a writer on legal questions, was an attractive woman "of singular merit," whose portrait is "expressive of great intellectual acuteness"; "she had precisely the same constitution as her son." This unusual woman devoted herself entirely to the rearing and education of her children.

II. *Development to age 17.*

1. Interests. Hume wrote: "I was seized very early with a passion for literature, which has been the ruling passion of my life, and a great source of my enjoyments." It is said that David Hume was "an economist of all his talents from early youth."

2. Education. After entering the University of Edinburgh at about the age of 11, David seems to have received the usual college education of Scotland, which terminates when the student is 14 or 15 years old. Evidence of the lad's knowledge of the classics is found in the frequent quotations from them, used from memory in his later correspondence.

3. School standing and progress. Hume reports that he passed through the ordinary course with success.

4. Friends and associates. He became, before the age of 16, the friend of Michael Ramsay, to whom was addressed that "remarkable production," his first extant letter.

5. Reading. Hume says of himself at the age of 14 that, left to his own choice in the matter of reading, he was inclined chiefly to books of "reasoning and philosophy, and to poetry and polite authors." He hated "task-reading," but his mention of books in his letter to Ramsay indicates that this dislike by no means extended to reading in general.

6. Production and achievement. A fragment, entitled "An Historical Essay on Chivalry and Modern Honor," is thought to have been written before its author was 17. It shows "matured thought" and "systematic analysis," and "is a remarkable early anticipation of Hume's later essay style, and a striking evidence of the power he had already attained of looking at his historical subjects from an independent point of view." At this time he had also written a number of unusual letters.

7. Evidences of precocity. (See II 6 above.) Hume's mother is reputed to have said: "Our Davie's a fine, good-natured crater, but uncommon wake-minded." The "good nature" of Hume was proverbial; what his mother meant by "wake-minded" is left to conjecture (see above).

AI IQ 155 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At about the age of 17, in accordance with the wish of his relatives, Hume commenced the study of law; a little later he relinquished it abruptly, because of his own disinclination. In his 24th year he went to Bristol to become a merchant, but after a few months he found this occupation unsuited to his tastes. In the following three years he laid, in France, the foundation for his literary career. The *Treatise of Human Nature,* published when he was 28, was written during this period. Three years were occupied with intense study; years that were something less than happy, because of a "lowness of spirits," probably induced by the severity of his manner of life.

AII IQ 160 (Rel. coeff. of data, .60)

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SAMUEL JOHNSON (1709–1784)

A Celebrated English Lexicographer, Essayist, and Poet

AI IQ 155 AII IQ 155

I. *Family standing.* Samuel's father, Michael Johnson, a book-seller and stationer of obscure extraction, was a fair Latin scholar, one of Lichfield's magistrates, and a zealous high churchman and royalist;

he was of a "large and robust body, and of a strong and active mind, but was addicted to a vile melancholy." He lost a fortune by a venture in manufacturing parchment. Samuel's mother came from an ancient race of substantial yeomanry. She was a woman of great piety and of distinguished understanding, although unacquainted with books and business. The parents were advanced in years at the time of Samuel's birth.

II. *Development to age 17.*

1. Interests. Young Samuel did not join in the sports at school, perhaps because of his defective sight and remarkably large size. As a young child he had been very sickly. He liked to saunter in the fields with a companion, but on such occasions he talked more to himself than to his friend. He loved to read, and at church time on Sundays he used to go into the fields with his books.

2. Education. While still a child in petticoats, Samuel had learned to read. He was "forming verbs when he could not speak plain." His first teacher was Dame Oliver, who kept a school for small children; then he studied English with a master, who "published a spelling book and dedicated it to the universe." From his 8th to his 10th year he attended the Lichfield grammar school, "a very respectable school," where he began Latin. With Mr. Hawkins, the under-master there, he learned portions of Aesop and Helvicus. In the upper school he read Phaedrus, the only book the class studied to the end. During his 16th year he attended the Stourbridge grammar school. Thereafter he spent several years at home reading many books.

3. School standing and progress. Dame Oliver said that Samuel Johnson was the best scholar she had ever had. Mr. Hawkins indulged and caressed this pupil, no doubt because he "really excelled the rest." In Latin, Samuel wrote twenty-five exercises while the others completed no more than sixteen, but he would always procrastinate until the last hour. His ambition to excel was great, though his application to books was apparently trifling. In ability to learn he far exceeded the other boys; in fact, he was never corrected at Lichfield, except for diverting the others. Only one schoolfellow was as good a scholar as Johnson, and he became a canon of Windsor. At Stourbridge the master was very severe with Samuel, though this was more for lack of reverence on the pupil's part than for want of ability or industry.

4. Friends and associates. At Lichfield, Edmund Hector, later a surgeon in Birmingham, was Samuel's school friend. At school the boys tried by flattery to gain Johnson's assistance in their lessons; even at times, carrying him to school on their backs. At the age of 15, Samuel became acquainted with a Quakeress with whom he imagined himself seriously in love.

5. Reading. When a boy, Johnson was immoderately fond of reading romances of chivalry, and from his earliest years he had a passion for poetry. He read Shakespeare so early (at 9 years) that the recollection of the speech of the ghost in *Hamlet* terrified him

for some time after, whenever he was alone. Between his 17th and his 19th year he read at home "a great many books which were not commonly known at the universities."

6. Production and achievement. He often dictated verses or themes, but he would never take the trouble to write them. Before he was 15 he had shown poetical ability in school exercises and other compositions and had made a number of translations in verse from Virgil, Horace, and Homer. The lines "To a Young Lady on Her Birthday" were almost impromptu.

7. Evidences of precocity. At the age of 3 Samuel could not be kept at home when he heard that the popular divine, Sacheverel, was preaching at Lichfield; "the lad listened and looked attentively." A child in petticoats, he memorized the Collect for the day from the Common Prayer Book "while his mother was going up stairs, though he could not have read it more than twice." In order to avoid exhibition as a prodigy of understanding he used to "run up a tree." At 9 he perceived the power of continuity of attention, and he applied himself so closely to an exercise that he was scarcely aware of the lapse of time. He was always uncommonly inquisitive, and his memory was very tenacious. Once a friend rehearsed to him eighteen verses, which after a little pause he was able to repeat verbatim, except for one epithet, which he altered to improve the line.

AI IQ 155 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 19 Johnson entered Pembroke College, Oxford, "the best qualified that Dr. Adams had ever known come there." During the first year he wrote, in Virgilian versification, an apology for neglecting an exercise. He translated Pope's *Messiah* into Latin verse with uncommon rapidity and in a masterly manner which won the high esteem of his college and even of Pope himself. His reading ranged widely. Beginning to think earnestly of religion, he read Law's *Serious Call to a Holy Life;* he studied intermittently his favorite subject, metaphysics, and he read the Greek authors. On one occasion he wrote, with extraordinary acuteness and eloquence, a statement in Latin describing the horrible hypochondria from which he suffered. His affliction created in Johnson somewhat erratic and careless habits; as a student he never rewrote his exercises, and he even neglected his first declamation until the morning he was to repeat it. Because of his poverty he was in residence at college very little of the time from his 21st to his 23rd year. At 22 he was employed as an usher in a school for a few months, but he found the duties too irksome for his impatient temper. At the age of 23 he began his first prose work, a translation of Lobo's *Voyage to Abyssinia,* the preface to which shows the characteristic Johnsonian style. However, for the next two years his literary efforts failed to bring him any income.

AII IQ 155 (Rel. coeff. of data, .75)

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SIR ROBERT PEEL (1788–1850)

A Noted English Statesman

AI IQ 155 AII IQ 170

I. *Family standing.* The Peel family were Yorkshire farmers, who became weavers, spinners, and calico printers. The grandfather, a calico printer, developed a successful business. The father, a man of sagacity, energy, and thrift, an originator and reformer in his business, was a statesman as well as a great manufacturer; he became, in Parliament, an ardent adherent of Pitt. The mother was a beautiful and charming woman, of the same class of society as her husband.

II. *Development to age 17.*

1. Interests. Peel was "a studious boy, anxious to cultivate his own mind and his own faculties to their very utmost, rather inclined, perhaps, to overcultivation." He was "a good boy, of gentle manners, quick in feeling, very sensitive, impatient of opposition from his young companions, and dreading ridicule overmuch." His sensitiveness was "physical as well as moral." At school Robert was never in scrapes. He was indolent as to physical exertion, but overflowing with mental energy and gifted with a most remarkable facility for acquiring knowledge. His habits were less social than were those of most of the boys. While others were engaged in sport, he was strolling through the woods communing with nature or with himself. Warmly attached to field sports and something of a marksman, he took, during his last year at Harrow, considerable part in football, and "his strength and pluck caused him to be considered one of the best players in the school." Byron, who was his classmate, even then predicted that Peel would some day become a great orator.

2. Education. Robert's father "determined that no effort should be spared to educate his son to the level of the career to which he believed him destined." As the boy grew, his parent "set to work seriously on the manufacture of another Pitt." At about 5 years of age Robert was placed under the instruction of the Curate of Bury, with whom he remained for four years. At the age of 10 he was sent to the Vicar of Tamworth, who had an excellent school patronized by the principal country gentlemen in the neighborhood. When he was almost 13, his father, wishing to send him to the best public school, selected Harrow, which the boy thereafter attended until he was nearly 17. He spent the months intervening between the end of school days and entrance to Oxford in regular attendance at the House of Commons and in visiting lectures on natural science at the Royal Institution.

3. School standing and progress. By the time he was 10 Robert had learned much from his father, much more by his own reading.

and from his tutor very little, that little being in English, Latin, and general knowledge. His classical studies did not extend beyond the *Latin Grammar*. At Tamworth, Peel soon became, by application and ability, the best scholar of his age. A saying of his schoolmaster's was to the effect that "Robert Peel and Robert Brown are all the hope of Tamworth Town." At Harrow, Peel (aged 13 to 16) was described by Byron as at the top of his class, a boy for whom all held high hopes. The poet recalled that "as a scholar he (Peel) was greatly my superior, as a declaimer and actor I was reckoned at least his equal. . . . . In school he always knew his lesson, and I rarely; but when I knew it, I knew it nearly as well. In general information, history, etc., I think I was his superior as well as the superior of most boys of my standing." Another classmate, later president of Columbia College, reported that what cost others hours of study Peel seemed to acquire without an effort, and that, when once acquired, it was appropriated forever. Peel soon asserted, and always maintained, his superiority as a scholar. The same classmate stated: "Classics were almost the only study of that day . . . . Peel mastered their languages, their literature, and their poetry, and so thoroughly familiar was he with them that it has happened to the writer more than once, after a half-holiday, when each boy of the upper forms was required to produce a copy of Latin or Greek verses, to see Peel surrounded, while the school-bell was yet ringing, with boys who had neglected their exercises, calling upon him to supply them, which he did, writing now Latin, now Greek, with as much facility as though it were his mother-tongue, and upon every-day topics."

4. Friends and associates. When Peel was at Harrow there were four boys in attendance who later became Prime Ministers. As noted above, Byron and King, afterward president of Columbia, were also schoolboys with Peel. (See II 3.)

5. Reading. No specific record. (See II 3.)

6. Production and achievement. (See II 3.)

7. Evidences of precocity. The retentiveness of Peel's memory was most remarkable. Before he was 9 he would, by his father's direction, repeat on Sunday evenings both the morning and afternoon sermons which he had heard preached. For four years before he was 10 he gave "displays" in which he repeated many lines from Goldsmith, Pope, and other poets. He was, however, never called upon to make an extempore speech. One of his teachers, being asked by the importunate father whether he might hope to see his son William a second William Pitt, is said to have answered: "I hope so, but Robert will be Robert Peel." Robert's Harrow tutor is reported to have said to his pupils: "I shall not live to see it, but you boys will one day see Peel Prime Minister."

AI IQ 155 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Robert Peel entered Christ Church at the age of 17 and remained there three years. He was a steady worker at both classics and mathematics, and fond of manly

exercises. He made a number of affectionate friendships with men chosen for their social rather than their intellectual attainments. When Peel took his degree at the age of 20, he obtained first-class honors in both classics and mathematics, the first occasion on which the feat had been achieved. Among his competitors were men who were to become respectively Vice-Chancellor of the University, Archbishop of Durham, and Professor of Divinity. After a tour of Scotland on foot and horseback, young Peel went to London, and when he had attained his majority, his father bought him a seat in Ireland and he entered Parliament. He remained silent through his first session, but seconded the Address in his second with a speech that was regarded as a distinct success. It was not until, at the age of 23, he delivered his panegyric on Wellington that Peel's political star began to rise. As a reward for his achievement he was appointed under-secretary for the Colonies, and, a year later, Chief Secretary for Ireland. He held this post six years, having established a reputation in Parliament. Even then he was spoken of among his friends as the future Prime Minister.

AII IQ 170 (Rel. coeff. of data, .75)

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MADAME DE STAËL-HOLSTEIN (ANNE LOUISE GERMAINE NECKER) (1766–1817)

A Celebrated French Writer

AI IQ 155 AII IQ 160

I. *Family Standing.* Germaine Necker's father, Jacques Necker (p. 268), a Swiss citizen of Prussian descent, was successively head of the greatest banking house of his time, Minister from Geneva to the French court, director of the French treasury, and Minister of Finance to Louis XVI. He was a man of incredible penetration, and of the highest integrity, who hated all affectations. Madame Necker, the daughter of a Swiss pastor, was a beautiful and "exemplary bluestocking" of remarkable gifts. The historian Gibbon had wished to marry her, but gave up his wish at his father's demand.

II. *Development to age 17.*

1. Interests. The only recorded childish occupation of Germaine Necker was fashioning kings and queens from paper and having them play tragedies, but, as this pleasure was forbidden to her, she had to hide in order to indulge in it. It is said that she and her companion did not play together at all like children. Their pastimes were those of mature minds. Germaine was accustomed to attending the theater and on her return to write the subject of the plays and the most striking things about them. Her pleasures, as well as her

duties, were intellectual; the thing which entertained her was the thing which made her cry.

2. Education. Her father, by his caresses, encouraged his daughter to talk continually. Her mother was more severe; but it was she who undertook the education of her daughter, plied her with books and tasks, and introduced her, even in childhood, to a circle of brilliant and accomplished men. Germaine studied deep subjects and listened to much conversation far beyond her age. Thus her mind and her emotions were equally but prematurely developed.

3. School standing and progress. After a period of informal education of a most stimulating character which was continued until she was 14, Germaine Necker suffered a nervous decline which required her to give up studies and other activities completely for a time. Her mother was greatly vexed at this obstacle in the way of producing the perfect product she had contemplated, and she ceased from this time to take any interest in her daughter's talents, which she now considered slight and artificial. The girl clung the more to her father, who appreciated her wit and vivacity, and she continued by these qualities to attract the society of the cleverest men in her parents' salon.

4. Friends and associates. Germaine was the friend of her parents' friends as early as her 12th year. She would sit on a footstool beside her mother and converse with three or four persons, who addressed her with the greatest interest. Among these were Thomas, Marmontel, the Marquis of Pesay, and Baron Grimm. Germaine was an animated and discriminating listener, entirely at ease even on political topics. Her friends, asking her questions about her studies, stimulated in her a desire for study by talk of things familiar and foreign. She said later that the sight of famous persons made her heart beat violently.

5. Reading. Her reading, which was not selected by her "more severe than watchful" mother, made a deep impression upon her. The abduction of Clarisse was one of the "events" of her youth. When Germaine was 16, she was present on one occasion when Madame de Genlis read one of her juvenile plays aloud to Madame Necker. The young miss showed that she was stirred emotionally to the very depths, a demonstration which the author of the play condemned as the result of too much stimulating society.

6. Production and achievement. At 14 when she was banished for a time to country life on account of ill health, Germaine and her companion, clad as nymphs or muses, declaimed verses, composed poems and even composed and presented dramas. At 15, when Necker's *Compte rendu* was published, his daughter wrote him an anonymous letter which, however, he recognized by the style. The same year she made notes on *L'Esprit des lois* with reflections of her own; and the Abbé Raynal asked her to write, for his great work, some paragraphs on "The Revocation of the Edict of Nantes."

7. Evidences of precocity. In early childhood Germaine won her father's applause by her sallies. This stimulated her to new retorts, and "she responded to her father's continual raillery with

that mixture of gaiety and emotion which always characterized her conversations with him." She was always anxious to please her parents; and, at the age of 10, on account of the great admiration which they had for Mr. Gibbon, she conceived it her duty to marry him, so that they could continue to enjoy the companionship which gave them so much pleasure; this plan she advanced seriously to her mother.

It is said truly that "Madame de Staël was always young, but never a child." At 11 she spoke with a warmth and a facility which were already eloquent and which made a deep impression on her companions; and she was even at that time able to maintain a brilliant and witty conversation with the cleverest of men. At 16 she was animated, talked a great deal ("too much" according to Madame de Genlis, her mother's friend), though always with wit and discernment.

AI IQ 155 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* In spite of an absence of physical beauty, with the exception of fine eyes and hair, Mlle. Necker early considered love and held dissertations with the wits on the passion. At 19, the desire of her life was to love and to be loved. In this year she wrote three short tales, *Mirza, Adelaide et Theodore,* and *Pauline,* which, however, were not published until ten years later. At the age of 20 Germaine Necker married Baron de Staël-Holstein, the Swedish ambassador. "She sought neither a lover nor a friend in her husband; she treated marriage as a convenience, in order to obtain that liberty denied her as a young woman." In the year of her marriage she published *Sophie,* a prose comedy in three acts, and in the following year *Jane Grey,* a poetical tragedy in five acts. A contemporary observer remarked at this time on the brilliancy of her style, and the vivacity of her conversation, which obliterated her defects of beauty and held her audience enthralled. Rousseau had been one of Mme. de Staël's first idols, and of her book on his writings and character, written at the age of 22, Lamartine said: "The first pages reveal more than a grand style, a grand soul in this young woman: Rousseau is judged there as he should be judged—with pity and enthusiasm."

When Mme. de Staël was 23, her father was dismissed from public office, but by popular will his absence from the country was of short duration. The distinguished daughter records the triumphal return of the family to Paris, but favor was short-lived; in a year Necker had lost the confidence of the people, had resigned his post, and returned to Switzerland. His daughter, however, remained in Paris, and for four years her salon was the rendezvous of royalists and Girondins. During the worst of the Terror she used her home to shield her friends, and she successfully defied the authority of the police to search the Swedish embassy. During these years, as later, the most distinguished foreigners and the best men in France flocked around her.

AII IQ 160 (Rel. coeff. of data, .60)

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ALFRED TENNYSON (1809–1892)

A Celebrated English Poet

AI IQ 155 AII IQ 160

I. *Family standing.* The Tennysons were solicitors and clergymen. Tennyson's father, a liberal-minded rector, was a skilful poet with wide and varied artistic interests. The mother, whose father was also a clergyman, was a remarkable woman of culture and education. Her family was one of old standing in the country.

II. *Development to age 17.*

1. Interests. In their earliest years, the Tennyson children played at being emperors of China, knights, warriors, or champions. Later they became devoted to gymnastic exercises. But they did not associate with other boys or take part in their sports. Alfred and his brother were sufficient to themselves. The bohemian and aesthetic tastes of the Tennysons led Alfred to a variety of unusual interests: if he loved music and dancing, he also loved carving wood and moulding clay; and he found subjects for his plastic art out of doors in the birds and beasts, of whose activities he was a keen and devoted observer. But it was into literary pursuits that his taste chiefly led him. While still at school, he delivered a political speech to his schoolmates, and, later, in private home theatricals his performance suggested real dramatic talent. He was always fond of reading and verse writing, and his were always the most thrilling of the tales in letter form which the household wrote and read aloud after dinner.

2. Education. From the age of 7 to 11 Tennyson attended a miserable old-style grammar school, which he hated, and from which he derived no benefit. He studied the elements of Latin and read Ovid, Delectus, *Analecta Graeca Minorca,* and the old *Eton Grammar.* From Alfred's 12th year onward he and his brother were taught at home by their father, who followed a course of study including languages, the fine arts, mathematics, and natural science. Alfred was at this time so overdosed with Horace that he was neither then nor later ever able to learn to appreciate this writer.

3. School standing and progress. During his school attendance (from the age of 7 to 11) Alfred was recognized, with other members of his family, as possessing ability, but he did not stand high

in his class. An old tutor, however, said later that he had learned rapidly and was easily instructed.

4. Friends and associates. The Tennysons were exclusive. Alfred's intimate friends until he was past 16 were all members of his own family. The neighbors were, in fact, wont to look a little askance at the unconventional Tennysons, and Alfred, with his often wild or absorbed air, they called "daft."

5. Reading. It is said that Alfred, at 8, knew no other poet than Thomson; at 10 or 11, the scope of his reading had extended and now Pope's *Iliad* had become a favorite. His first book of verse, published when its author was 17, shows Tennyson's "multifarious" learning. It reflects the works of a large number of Latin authors, Xenophon and Appolonius Rhodius, Racine and Rousseau, Spanish authors, the English classical and later writers, Spenser, Shakespeare, Milton, Young, Mason, Beattie, Cowper, Ossian, Scott, Moore, Byron, Addison, Burke, Mrs. Radcliffe, the German Heine, Gibbon, and the great Oriental scholar, Sir William Jones. Other favorite writers of Tennyson's youth were Goldsmith, Rabelais, Swift, Defoe, Bunyan, and Buffon.

6. Production and achievement. On one occasion while other members of the family were at church, Alfred, aged 8, covered both sides of his slate with Thomsonian blank verse in praise of flowers. Three or four years later he and his brothers wrote hundreds of lines in Pope's meter. A letter from Tennyson's 13th year is the work of a young pedant, while another of the same period is grandiloquent and facetious. The poet said he felt truly inspired in the writing, at the age of 12, of an epic of 6,000 lines "*à la* Walter Scott, full of battles." At 14, he composed two dramas in blank verse, in one of which appear the following striking lines: "You would look down and knit your baby brows into your father's frown." In both plays the language and manner of the young poet's favorite models are conspicuous. Rhyming verses of the following years show mastery of meter and a true sense of rhythm. In the two years before he was 17, Alfred wrote 42 poems which were published (in their author's 18th year) in the *Poems by Two Brothers*. Contemporary notices expressed a favorable opinion of the volume and stated that it contained "exquisite pieces of verse." A publisher paid twenty pounds for its copyright. Lang and Stopford Brooke have more recently declared that these verses have little merit, but Lounsbury and Van Dyke find among them several which are not only unusual productions for authors so young but also productions good in themselves, "glorified nomenclature which Milton need not have blushed to acknowledge." The quality of Alfred's verse was already far superior to that of his elder brother, Charles. The younger and more gifted poet exhibited clever and intricate varieties of verse and peculiarities of diction that the elder never reached.

7. Evidences of precocity. Before he was old enough to read, little Alfred on a stormy day spread his arms to the sky and cried, "I hear a voice that's speaking in the wind." It is stated that on reading some of his son's earliest poems, the father was deeply

moved, and a little later when his son lay ill he said, "If Alfred die, one of our greatest poets will have gone."

AI IQ 155 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Alfred remained at home until, at 18, he entered Trinity College, Cambridge, where he found the arid atmosphere of the university, then predominatingly mathematical, monotonous and uninspiring. Nevertheless, he won, at 20, the Chancellor's gold medal for a poem on "Timbuctoo," his being the first prize poem submitted in blank verse. About a year later the volume *Poems, Chiefly Lyrical* was published and received favorable reviews from Sir John Bowring, Leigh Hunt, and Arthur Hallam. S. T. Coleridge saw in these poems, in spite of a clearly imperfect understanding of meter, "something of a good deal of beauty." During the summer vacation, Alfred and his college friend Hallam made a foot journey through France to the Pyrenees with money and letters for the Revolutionists. Again at the university Tennyson studied classics, history, and natural science, and took a keen interest in politics. He took physical exercise in rowing, fencing, and walking. At home, whither he returned (at 21½) upon the death of his father, he soon became noted for prowess in feats of physical strength. He was called "Hercules" as well as "Apollo." At 22 Tennyson published four poems in literary journals, and in the autumn of the following year his collected *Poems* appeared. This volume includes "The Lotus Eaters" and "The Dream of Fair Women." At 24 he printed *The Lovers Tale,* written five years earlier. In the autumn of the same year his beloved friend, Hallam, died, and, in sorrow, Tennyson began *The Two Voices, In Memoriam,* and the first draft of *Morte d'Arthur.* In the two years following Hallam's death, Tennyson's health and spirits were indifferent; he sought solace in the works of Racine, Molière, and Victor Hugo. At 25 he was busy copying *Morte d'Arthur.* Hartley Coleridge stated about this time that Tennyson was undoubtedly a man of genius; but Wordsworth confessed that for his part "he wanted the faculty to enter fully into" the beauty of the young poet's style.

AII IQ 160 (Rel. coeff. of data, .82)

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LUDWIG TIECK (1773–1853)

A German Poet and Critic

AI IQ 155 AII IQ 155

I. *Family standing.* Ludwig Tieck's father, a master rope-maker of Berlin, was an intelligent, upright workman, a loyal subject of "old

Fritz," and a believer in Rationalism and Enlightenment. He was fond of reading, especially the works of Goethe, and of the theater, and had definite ideas about the education of his children. The gentle, kindly mother adhered to the ancient religious faith; she loved her children devotedly, and guarded them from the apparent severity of their father.

II. *Development to age 17.*

1. Interests. When he was very young Ludwig was fascinated by the sight of his mother's ornamented hymnal as well as by the sound of the psalms and hymns she read from it. As a little child he developed a great delight in the theater, and began to think of having a little play-house of his own. Lead soldiers were the actors in his first plays; these were succeeded by paper puppets; and finally Ludwig and his brother and sister acted the parts of the little plays that the young poet composed. At 11 and 12 young Tieck attended the theater, frequently alone. He saw and greatly enjoyed plays of Lessing, Goethe, Schiller, and Shakespeare. Later during his teens his artistic interests had a further opportunity to expand when he became a participant in private theatricals and musical programs at the home of the composer and opera director, Reichardt.

2. Education. Tieck's first instruction was received at his mother's knee. At 5 he entered an ABC school and so eager was his interest that he daily anticipated the hour of opening. Before his 10th year he was sent to the French school for boys kept by a local tailor, and here he learned French in addition to the regular school subjects. The years from 9 to 19 he spent at the well-known Friedrich-Werder Gymnasium, a Berlin school of high standing.

3. School standing and progress. The boy's mother taught him his ABC's at his own earnest request, and her instruction was aided by the boy's imagination, which endowed the letters with merry living qualities. As a result of early interest and training Ludwig could read when he was scarcely 4. Later, at the Gymnasium, his ability won him recognition among teachers and pupils alike. His special gift, a peculiarly photographic memory, so impressed one master that he led the youth to the center of the room and then called upon the other children to rise and bow to him three times in recognition of his unusual talent. During the Gymnasium years Ludwig received instruction outside of the regular curriculum in Greek, French, Italian, music, and dancing.

4. Friends and associates. At one time during his boyhood the lad was strangely devoted to a cold, reserved, ambitious fellow who spurned his naïve affection and constantly gave him cause for grief. Later the young poet's loving heart found a sympathetic friend in the romantic Wackenroder, a carefully educated, talented, dreamy boy, and the two remained close friends and collaborators until Wackenroder's death at the age of 25. Other school associates were Toll, son of a porcelain manufacturer, a fine studious fellow, fond of sport; good-natured Von Burgsdorff, the son of a nobleman; and Viering, son of a country clergyman, a merry and original spirit.

5. Reading. Soon after Ludwig was 4 years old the Bible took the place of the primer in his education, and its historical and poetical books became his favorite reading. Even in his earliest childhood the little fellow had read the Bible through more than once. A little later he was introduced to German literature through the books his father read aloud in the evenings. These were usually poetic, but occasionally they included such works as Fontanelle's *Multiplicity of Worlds.* Goethe's *Götz von Berlichingen* was an early favorite. The world thus opened to the boy through books became a real one, and its people, living beings. During the Gymnasium years the *Odyssey* and Kleist's *Frühling* were among the books that fascinated him. Ludwig read all the volumes in his father's library and in the loan library, and he borrowed whatever books he could from his comrades. He conceived a great enthusiasm for Shakespeare, and discovered the treasures of Cervantes and Holberg also.

6. Production and achievement. A poem written when Tieck was 11, in honor of the marriage of the school director, caused the other boys to marvel at his talent, but it was not until he was about 15 and in the second class at the Gymnasium that his compositions began to be noteworthy. Up to that time his father had often helped him with the hated formal exercises, but now he began to write independently, to express himself freely in writing, and to write compositions for the other boys as well. He was praised by his teachers for the literary ability displayed in his productions, and as often scoffed at and even harshly reprimanded for the original opinions he expressed. At 16 he wrote some dramatic scenes to accompany *A Midsummer Night's Dream,* in which he idealized the great English poet.

7. Evidences of precocity. Little Ludwig was a sensitive and a precocious child. From a very early age pictures and experiences made so strong and even painful an impression upon him that he preserved the memory of them even in his advanced years. At a puppet play, the strange antics and attitudes of the puppets and the tragic tones terrified him so that he wept, and his father had to carry him out. When he was about 4, neighbors and relatives seeing him on his little footstool eagerly reading in the Bible would shake their heads doubtfully over his unusual talent, or even refuse to believe that he was actually reading. (See also II 1, 3, and 6.)

AI IQ 155 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Before completing the Gymnasium course at 19, Tieck had already produced literary work of genuine merit. At 17 he went through a distressing period of depression, but improved after he had made, at the age of 18, the acquaintance of Marie Alberti to whom he was a little later engaged. From 19 to 21 he attended the Universities of Halle, Göttingen, and Erlangen, studying history and literature, especially Shakespeare and the Elizabethan drama. During these years he produced work that was later published. By the age of 21 he had definitely decided upon a

literary career, and, before he was 26, had published a considerable amount of literary work, including short stories, novels, and plays.

AII IQ 155 (Rel. coeff. of data, .75)

REFERENCE

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FRIEDRICH AUGUST WOLF (1759–1824)

A German Classical Scholar, Regarded as the Founder of Scientific Classical Philology

AI IQ 155 AII IQ 165

I. *Family standing.* Wolf's parents were honest, simple, careful, happy people. His father was a schoolmaster and organist, who gave written expression to his wisdom in proverbs. Frau Wolf, the daughter of the town clerk of a nearby village, was a wise and an unselfish mother. Her famous son always felt that he owed his intellectual interests to her.

II. *Development to age 17.*

1. Interests. When a little child, Wolf said that if he grew up he would be a "superdent" (superintendent), the highest church official he knew and to him the sum of all dignity. Wolf's father planned to train him to be a musician; but although the boy found in music a genuine recreation, he soon discovered that it could never satisfy him as a permanent employment. He could play the flute, and harp, although the clavier was his favorite instrument; he even composed new airs. Participation in athletic sports was not allowed by his parents, and so recreation usually meant little walks or trips into the country. Wolf had no inclination for anything mathematical. As early as the age of 10 he decided on a scholar's career, and he devoted himself thereafter to this one purpose, forgetting all else.

2. Education. On his mother's lap the little boy learned many songs, fables, and proverbs; and he learned a simple practical philosophy, for his mother taught him to insist on deeds as evidence of the genuineness of attitudes. His first formal instruction was given by his father, who had a gift for teaching, knew Latin and some Greek, and admired ancient history and literature. When barely 2, Friedrich was taught to enunciate clearly, and as a game he learned sentences and verbs, first in German, then in Latin. At 3 he began to write and to study music. Before he was 5 his father had instructed him in reading aloud, thinking without writing, avoidance of ambiguity, and mental computation. At 6 he had made some progress in Latin and he knew a little French and Greek. He was then sent to the Gymnasium. The rector, a learned man, but unsuccessful as a teacher of small boys, was succeeded four years later by a vigorous, able scholar, J. C. Hake, who had a deep interest in the study of the classics. This energetic teacher encouraged Wolf to come to him out

of school hours to discuss his work. Hake developed in his pupil a profound belief in the value of self-training, and after the death of the teacher a little later, Wolf, then 10 years of age, attended school less frequently, made his own plan of study and carried it out at home, working often far into the night. A year of needed recreation followed this severe discipline; the boy deliberately gave up study, played ball, and ran about the streets. Then he returned to his books with renewed zeal and improved health. Friedrich's father's friend, Frankenstein, taught the boy first French and Italian, then Spanish, and the little he knew of English. From Schröter, a leading scholar in the theory of music, Wolf at 16 learned counterpoint, "plagued unspeakably by difficult calculations," and "eagerly lapped up" all his teacher could tell him of Greek music. At 16 he began to study Hebrew.

3. School standing and progress. In the entrance examination to the Gymnasium, the boy of 6 read Greek, some Cicero, and easy modern Latin verse. Skipping the four lower classes, he was entered in the third class where he read the less difficult Greek authors and the New Testament. With his father's help he made rapid progress and soon was the best student in his class. At 8 he was promoted to the second class, and at 10 to the first. At 14 he had become a member of the rector's own class. But his teacher was a man of little mind who disgusted the studious boy by refusing to give his authority for a statement doubted by his pupil. Wolf left the class and at the next public examination he exposed the hypocrisy of the rector by presenting to the audience copies of questions and answers prepared by the teacher so that his students might make an apparent success. At 17 Wolf was ready for the university, a *primae classis gymnasii per sexennium civis.*

4. Friends and associates. Wolf had two inspiring teachers who instructed him out of school hours. Frankenstein was to him in modern languages and literature what Hake had been in the ancient. The former, whose association with his young disciple was so unfortunately cut short by an early death, was more interested than any of his other instructors in the general development of all the boy's talents. At 15 the lad fell in love with a young widow, who shared some of his intellectual interests. Neither his family nor hers discouraged the affair, and when the lady died, Wolf, at 16, was disconsolate until he returned to his exhaustive and absorbing study. Oberprediger Ostermann and Pastor Lesser, two excellent men, were attracted to the 16-year-old Wolf by his skill in reading Latin and Greek; they criticized his work and introduced him to their classical libraries of some thousand volumes.

5. Reading. At 12 Wolf read Voltaire and Molière in French, preferring the former. Italian he liked better than French; in it he read the story of *Bianca Capello* and also Tasso's works. In Spanish he read *Don Quixote* which he had previously read in German. In Hebrew he read most of the Pentateuch and other parts of the Old Testament. At 14 "Homer had long been his daily repast." Livy he had read only casually.

6. Production and achievement. When he was no more than 5 Wolf could recall ten to fifteen lines of verse after a single reading. At 12 he learned whole cantos of Tasso, and he wrote Italian verses so well that his teacher thought them taken from Italian writers. In learning English at 12 he required the use of a dictionary which was available for one month only, so he learned two-thirds of it by heart and copied the other third. He was said to have learned the whole Greek dictionary by heart. He could recite many rhapsodies of Homer and whole tragedies, even before he got their complete meaning. With this remarkable memory he combined iron persistence; he kept himself awake late into the night by artificial means, a rigor which, strangely enough, did not ruin his health. At 16, when engaged to arrange a classical library, he examined each book, memorized its title, author, edition, place of publication, and made mental note of the character of the volume. Having obtained access to all the sizeable libraries in the town, he early became an authority on extant classical works. At 14 he began taking private pupils and at 16 had developed an excellent teaching method. At this time he began a comparative study of ancient and modern languages and commenced to make his own comparative grammar.

7. Evidences of precocity. Wolf remembered the French soldiers who talked in French and broken German in his father's house when he was 2½. At 4 he recited at the conclusion of the service in the village church a Thanksgiving poem composed by his father, and at 5 he frequently read to the congregation sermons which his father had prepared for the purpose. Wolf said later that even in his 13th year he was "pretty well finished and developed." (See also II 2 and 6.)

AI IQ 155 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From the age of 18 to 20 Wolf attended the University at Göttingen, registered as "a student of philology," although the great Heyne tried to dissuade him from this course and called his plan of study absurd. Wolf was not to be turned aside; he knew exactly what he wanted; he attended the opening lectures in many courses, got the orientation and the bibliography and then spent the rest of the semester reading and studying, sometimes remaining in his room for months at a time. He read Homer, Ossian, and the Old Testament, and attended lectures in natural science and psychology. He had few acquaintances and he took no part in student activities. To save time in dressing he wore a wig and a simple cloak. Because of his remarkable zeal he was allowed the unusual privilege of using the library during closed periods. His lectures on Xenophon and Demosthenes to a group of fellow-students created considerable interest. Upon Heyne's suggestion Wolf was appointed collaborator in Ilfeld and there (aged 20 to 23) he carried on for three years the activities of a skilful teacher. At 21 he edited Lillo's *Fatal Curiosity,* and two years later Plato's *Symposium,* with notes and introduction. To increase his income and thus be able to marry, Wolf left Ilfeld and became a teacher at Osterode, where in one year he reformed the entire system, intro-

ducing true humanistic study, and leaving for his successor an excellent method, a carefully worked-out school program, and an enthusiastic student body. At the close of the school year Wolf, now 24, accepted from several offers that of a professorship of philology and pedagogy at the University of Halle. He spent the next twenty-three years at Halle, inspiring his students with his own ardor in the study of antiquity.

AII IQ 165 (Rel. coeff. of data, .75)

REFERENCE

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CHAPTER XX

CASES RATED AT AI IQ 160 TO 170

JACQUES BÉNIGNE BOSSUET (1627–1704)

A French Prelate and Celebrated Pulpit Orator, Historian, and Theological Writer

AI IQ 160 AII IQ 160

I. *Family standing.* Bossuet came of a "family of magistrates, remarkable for their good sense, activity, and religious faith." Several members of his immediate family were priests, including his father who entered the church in old age after he had achieved eminence in a successful career as a lawyer. Of Bossuet's mother it is known only that she was a pious woman, who consecrated her son to the Church at the time of his birth.

II. *Development to age 17.*

1. Interests. Bossuet had from the first but two interests in life—religion and scholarship.

2. Education. His unusual ability was early discovered by his uncle, and he was sent to the Jesuit school in Dijon, where he received a classical and religious education. At the age of 8 he was given the tonsure by the bishop of Langres, as a sign of consecration to the Church, and at 13 he went to the College of Navarre in Paris to study theology.

3. School standing and progress. From the first "he surpassed all others of his age, and masters and pupils soon measured him only in terms of his own ability. . . . . He was a child only in appearance; his mind was mature at birth." At Paris he became as noted as at Dijon. "On account of his talent for speaking, the university chose him for public address on festival days. . . . . He became an object of admiration and was soon snatched from his obscurity."

4. Friends and associates. (No specific record.)

5. Reading. Bossuet early developed a passion for reading, being especially fond of poetry. Homer he placed above all poets and orators, always referring to him as "the divine Homer," and he also greatly admired Horace and Virgil. But the Bible was his favorite book, especially the poetry of the Bible.

6. Production and achievement. At the age of 13 Bossuet became canon of Metz. At 16, on going to Paris, he was invited, at the Hôtel de Rambouillet, to give an extempore sermon. In his address he contrasted the glory of Jesus with the glory of earthly potentates and heroes, developing a comparison between the lives of Christ and Alexander the Great, and concluded with a description of the Last Judgment. The admiration excited by his brilliant discourse was echoed throughout Paris.

While at Navarre, Bossuet had been wont to attend the theater, where he was charmed by the tragedies of Corneille, and under this influence he began to write madrigals and pious poems in the *précieux* taste of the age. (See also II 3.)

7. Evidences of precocity. (See II 2, 3, and 6.) According to Lamartine, Bossuet exhibited no faults or foibles in his childhood. "He seemed . . . . to have no other passion than the good and the beautiful." His appearance, even at 13, attracted admiration as an index of rare genius and spirituality.

AI IQ 160 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17 Bossuet received the baccalaureate degree in philosophy, and two years later in theology for a thesis dedicated to Condé. The great hero came in person to listen and participate in the discussion; this was the beginning of a warm friendship between the distinguished statesman and the young preacher. Nine months later Bossuet was ordained subdeacon at Langres, and at this time he definitely gave up his life to the Church. During the year he wrote *Méditation sur la briévete de la vie.* Bossuet formed a friendship with St. Vincent de Paul, who so played on his religious zeal as to lead him almost into fanaticism. He maintained his equilibrium by studying poetry and oratory, and by visiting the theater, where he heard the great tragedians. At 25, having passed a brilliant examination at Navarre, Bossuet was ordained a priest, and the following month was made a Doctor of Nôtre Dame. In the same year, having been created archdeacon of Serrebourg, he withdrew to Metz where he soon gained fame for his brilliant sermons and orations.

AII IQ 160 (Rel. coeff. of data, .53)

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HENRY PETER BROUGHAM (1778–1868)

A Celebrated British Statesman, Orator, Jurist, and Scientist

AI IQ 160 AII IQ 170

I. *Family standing.* Brougham's grandfather was a prosperous attorney who acted as steward to the Dukes of Norfolk. Of the father it is known only that due to a great shock he lost his reason for a time. The mother was a woman of rare sagacity and unusual powers of judgment. Her father was a minister of the Church of Scotland; her uncle was Dr. Robertson the historian. It was to his maternal grandmother, however, that Brougham felt he owed most. Beautiful, intellectual, and clear in understanding, she instilled in her grandson the first principles of the persevering energy that enabled him to accomplish what he did.

II. *Development to age 17.*

1. Interests. Brougham's interests were at first scholastic and literary, then scientific, and finally legal. (See II 3, 5, and 6.)

2. Education. Just after Brougham had been taught to read by his father, a fever destroyed all his knowledge, so that he could not recall even the letters. With returning health came rapid re-learning, and before long Henry was ready to enter a day school. His grandmother worked with him day by day, and such was his progress that at 7 he had outgrown his first school and was ready for a second. At 11 he entered a third school in which he was enrolled for two years, although he was absent practically the whole of the first year on account of illness. When he left this school he was ready for college but was considered still too young to enter the higher institution. Consequently he remained with his family who were spending the year in the country. A tutor had been engaged to supervise the boy's studies, but Henry depended little on this guidance, "always did his work by himself, scorning assistance, and never applying for help when he could possibly avoid it." During the year the boy read the classics with his father and, encouraged by him, tried his hand at writing. At 14 he entered the university. Before he was 17 he had exhausted the ordinary university curriculum in the humanities, physics, rhetoric, and ethics; but without graduating, since the university gave neither examinations nor degrees except in medicine. His choice of law as a profession necessitated attendance at university lectures for two additional years.

3. School standing and progress. Under his grandmother's careful tuition, little Brougham not only won and kept a good place in his class, but he even made his teacher confess himself in error on a disputed point in Latin. This victory won the boy great credit among his schoolfellows, and Brougham was called "the boy that had licked the master." At his third school (aged 11 to 13) the teacher excited in his pupils an ardent love for the subjects taught and a spirit of inquiry into all things that related to them. During the period of his illness Brougham made distinct progress in learning; he kept up his reading and tried his hand at composition. His mother records: "He went through all the classes with credit and came away *dux* of the fifth class. . . . . The examination was in August, at which time he had not reached the age of 13—an age unusually early, considering, too, that he had been only one year, instead of two, the usual number, in the rector's class." At 16, at the university, Brougham "hit on the binomial theorem 'by induction.'" As he desired to master the fluxional calculus, his professor, Playfair, advised him to read Bezout, and this he did with much profit.

4. Friends and associates. Before he was 14, Brougham's chief associates were his teachers and the members of his family. At the university (aged 14 to 17) he was closely associated with a group of men later distinguished as statesmen, warriors, or churchmen, "whose celebrity was destined to spread far beyond the confines of Edinburgh." The eminent mathematician, Playfair, became a lifelong friend and correspondent.

5. Reading. "An omnivorous reader with a tenacious memory and almost superhuman powers of application, he amassed a store of miscellaneous learning, during his early years, beyond the wildest imagination of schoolboy or undergraduate south of the Tweed. He had a wide and fairly accurate knowledge of the Roman poets, orators, and historians." He memorized large portions of Cicero and Virgil. "They were ever at the tip of his tongue; and he possessed the gift of terse and close translation from Latin into English."

6. Production and achievement. In the year before he entered the university, Brougham tried his hand at writing English essays and tales of fiction. One of the latter, "Memnon, or Human Wisdom," shows the boy's power of keen philosophical analysis and his even keener satire. A letter recording the making of a translation of Florus and reporting strenuous scholastic activities bears witness to his excellence of style. Two months after Brougham entered the university, he instigated the establishment of a debating society, of which he became the first president. The following year (aged 15) he was elected to the famous "Speculative Society" which numbered among its members the most distinguished students of the university; but not satisfied with the weekly meetings of this organization, he founded, for practically the same group of young men, the "Academy of Physics," before which he presented papers on law reform. At 16 or 17 Brougham submitted to the Berlin Academy of Sciences an essay on the deflection of a projectile from a vertical plane, embodying the results that he and his brothers had obtained in trying out this principle experimentally. Brougham devoted some time to the investigation of porisms and to experiments on light and colors. He submitted a paper to the Royal Society containing some additions to the Newtonian doctrine; this was accepted and printed in the Society's transactions. Curiously enough, this paper contained the suggestion of the principle from which photography was later to be developed; but this part of the discussion was omitted from the work as printed. (Fifty years later photography was developed independently by other investigators.)

7. Evidences of precocity. Brougham's mother recorded of her son that "from a tender age he excelled all his contemporaries. Nothing to him was a labor . . . . no task was prescribed that was not performed long before the time expected. . . . . His grandmother used to compare him to the admirable Crichton, from his excelling in everything he undertook. From mere infancy he showed a marked attention to everything he *saw* and this before he could speak; afterward, to everything he *heard*, and he had a memory the most retentive. He spoke distinctly several words when he was eight months and two weeks old; and this aptitude to learn continued progressive." His earliest recorded utterance was due to a nasty tumble downstairs. "Have you hurt your head?" inquired the anxious parent. "Sure, ma'am, it was crackit before," was the reply, being the invariable phrase of excuse of a maid servant, from whose hands no breakable article was safe. (See also II 3, 5, and 6.)

AI IQ 160 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Brougham at 17, having exhausted the usual university curriculum, was driven to choose a profession. He elected to study for the bar, but did not neglect his scientific studies. He continued to attend lectures in mathematics and experimental sciences. During the next three years, in the midst of varied activities, two papers on optics were produced and one on porisms. Walking tours in the Highlands, and a winter in Denmark and Sweden in the company of a number of friends, including Lord Stuart de Rothesay, broke the routine of study. Brougham, aged 22, was admitted an advocate of the Scots Bar on his return from the Continental trip. The same year his brother Peter was killed in a duel and, as a consequence, Henry Brougham's mind became temporarily unhinged. In the following years the study and practice of law became distasteful to him, and he devoted more and more time to science and literature. He was a constant attender at the debates of the Speculative Society and planned the foundation of the *Edinburgh Review* in collaboration with Smith and Jeffrey. The *Review*, the first number of which appeared when Brougham was 24, was somewhat unexpectedly an immediate success. For the first four numbers Brougham wrote twenty-four articles on literature, science, and politics. Although not, perhaps, of the quality of the most eminent essayists, still these early productions maintained a good general level of excellence. Of Brougham at this time a critic wrote, "As a general utility man, prepared to take any subject at a moment's notice, equally ready to smash a professor or gibbet a poet, he was without rival for either vigor or variety." At the age of 25, Brougham was made a Fellow of the Royal Society in recognition of his scientific work. In the meantime his law cases had not progressed any too favorably, and so, in order to gain a reputation, he went on circuit following Judge Lord Eskgrove, but this proved uncongenial and he abandoned the practice after one trial. Fired with the prospect of a political career, Brougham now went south and entered Lincoln's Inn. After a tour of Holland and Italy he finally settled in London, where his writings in the *Edinburgh Review* had already made him, at 26, a man of some mark.

AII IQ 170 (Rel. coeff. of data, .75)

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PHILIPP MELANCHTHON (1497–1560)

A German Reformer, Famous as the Collaborator of Luther

AI IQ 160 AII IQ 180

I. *Family standing.* Melanchthon's father was a skilful armorer, who early won the favor of his Elector by his clever workmanship. His fame spread beyond the limits of the Electorate, and he was con-

stantly in demand among foreign princes. The Emperor Maximilian, delighted with his work, presented him with a coat-of-arms and retained him in his employ.

Philipp's maternal grandfather was "a fine, intelligent man," of superior education. The maternal grandmother, a sister of the celebrated pre-Reformation scholar Reuchlin, was concerned for her grandchildren's education and took charge of their training after the death of their father and grandfather. Philipp's mother, "virtuous and well-bred," was beloved of her children.

II. *Development to age 17.*

1. Interests. Melanchthon was always fond of scholarly pursuits. His studies covered a wide range, for he "sought to know everything" and "to be a master in every science." He would often gather together a few schoolfellows for the purpose of discussing what had been read and learned. His enthusiasm for classical literature was great, and even before he was 17, he had come to occupy a conspicuous place among the humanists who were rising in opposition to the monkish pedantry of the day.

2. Education. Young Philipp was sent to the town school and there, well drilled in the rudiments of knowledge, he made rapid progress. Later he was instructed at home by an excellent teacher, John Unger (recommended by Reuchlin), who, correcting every mistake with the rod, grounded him thoroughly in grammar and syntax, and inculcated modesty, honesty, and love of truth. At the age of 10 Philipp entered the excellent Latin school at Pforzheim, where he came under Simler, a superior Latin scholar with a rare knowledge of Greek and Hebrew. Here he was one of the favored few admitted to the master's instruction in Greek. In his 13th year Melanchthon was matriculated under the philosophical faculty in the University of Heidelberg. Here he pursued his studies largely by himself, reading history, drama, and the ancient classics, and studying dialectics and the philosophy of Aristotle, while attending lectures on mathematics and astronomy. He passed his final examinations when he was not yet 15. At the end of another year he had fulfilled the requirements for the M.A. degree, but, denied this honor because of his youth, he transferred his matriculation to Tübingen. In addition to the studies pursued at Heidelberg he now took up Hebrew, medicine, and theology, receiving the M.A. degree at the age of 16.

3. School standing and progress. Melanchthon had quick perception, acute penetration, a retentive memory, an ardent thirst for knowledge, and the ability to express his thoughts with accuracy and precision. In school and out he was incessantly asking questions; he was noted for proficiency in grammar and was irresistible in dispute. At Pforzheim he surpassed all his schoolfellows, among whom were a number who later won distinction. Philipp's progress so pleased his great-uncle Reuchlin that the latter gave his nephew a copy of his own Graeco-Latin Lexicon as a reward for the composition of certain Latin verses. The boy and his schoolfellows further delighted the eminent scholar by rendering one of

his school comedies with skill and elegance. At Heidelberg, Melanchthon acquired so high a reputation for proficiency in Greek that, on one occasion, when the professor was forced to leave his class because of sudden illness, the instruction was left in Philipp's hands.

Melanchthon was one of a comparatively small portion of the student body who fulfilled the B.A. requirements. He received the M.A. at Tübingen, the first among eleven candidates.

4. Friends and associates. The most important influence exerted on the youthful mind of Philipp was his intimacy with Reuchlin, his great-uncle. At Heidelberg the boy lived in the home of Dr. Spangel, a man of striking personality who assisted and encouraged his protégé. Melanchthon numbered among his university friends the noted scholar, Jacob Wimpfeling, who embodied the rising spirit of humanistic culture, the poet Sorbil, and a number of other young men who were destined to play an important part in the events of later years; among these were Sturm, Billican, and Brentz. Philipp "held a high place in the estimation of his associates."

5. Reading. In his early teens Melanchthon read the poets, history, and the drama with boyish avidity. He was interested in Cicero and Demosthenes, but he preferred "modern" works like those of Politian. He was much impressed by the sermons of Geiler. At Tübingen he read Occam, Gerson, and John Wessel assiduously, and he studied Galen so carefully that he could repeat most of his works from memory. At this time his great-uncle Reuchlin gave him a Latin Bible, which he read carefully day and night, always carrying it with him.

6. Production and achievement. Two Latin poems written at the age of 13 have been preserved. They are representative of a large number of productions several of which were published at this time in various occasional collections. Before he was 16 Melanchthon tutored two noble youths, and in his 17th year he received a license as *Privatdocent* at Tübingen to lecture on the ancient classics. He also instructed a select group of students in the Greek language. The same year he became corrector to the printer, Thomas Anshelm, a position that could at that time be held only by a learned man; he edited and almost completely re-wrote *The Universal History* by John Naucler; and he began a translation of Plutarch and of Aratus. It is probable that he completed the outline of his grammar while still at college.

7. Evidences of precocity. (See II 3 and 6.)

AI IQ 160 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Melanchthon remained at Tübingen until he was 21. The learning and talents of the youth who was already "without question the best humanistic scholar in Europe" attracted the attention of the great Erasmus who praised his "sagacity in argument, purity in style, comprehension of learned subjects, varied reading, delicacy and almost royal elegance of mind." Before leaving Tübingen he had progressed from the elder humanistic school to that of the young reformers. In 1518 Frederick the

Wise offered the young scholar (aged 21), who had already refused a call to Ingolstadt, the chair of Greek in his new University of Wittenberg. (This offer was made on the recommendation of Reuchlin who said that the youth was surpassed by only one scholar, Erasmus.) Melanchthon was glad to accept the call and found in Wittenberg a very congenial atmosphere. The first disappointment of his colleagues, who saw only that he was very young, small, diffident, hesitating, and of a frail body, was quickly replaced by admiration and delight when they heard his first public oration, an achievement which marked the beginning of a new era in culture and religion. Almost immediately students began to flock to Wittenberg, drawn by the reputation of the young scholar. Melanchthon and Luther were at once attracted to each other, each finding the complement of his own nature in the other and esteeming his friend better than himself. The Leipzig disputation, which occurred when Melanchthon was 21, was a turning-point in the young man's life, for it marked the real beginning of his active participation in the work of the Reformation. When the diet of Worms condemned Luther, Melanchthon alone undertook to defend him, writing (at 24) the *Apology*. In his 23rd and 24th years he wrote his most important theological work, *Theological Commonplaces*, an epoch-making contribution in the history of theology. For fifty years it held first place as a theological textbook in the universities. Melanchthon was married at 23.

AII IQ 180 (Rel. coeff. of data, .75)

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LOUIS ALFRED CHARLES DE MUSSET (1810–1857)

A Celebrated French Poet

AI IQ 160 AII IQ 170

I. *Family standing.* The family of Musset were for generations lovers of literature, and every member had literary talent. The poet's granduncle, the Marquis de Musset, gained a brilliant success in 1778 with a novel in letters. Alfred's father combined literature with war and official duties; his writings included historical works, travels, books of erudition, novels, and humorous verse. This literary soldier is characterized as jovial and quick of retort, but the kindest of men and an indulgent father. The maternal grandmother, although possessing an infinite fund of good sense, was a passionate and eloquent follower of Jean Jacques. To his mother, Alfred owed a wholesome and happy childhood.

II. *Development to age 17.*

1. Interests. In his 8th and 9th years Alfred took keen pleasure in reading and re-reading fantastic tales and stories of chivalry,

acting them out with his brother as plays. He wished to excel in all he did, and (at 16) said he would rather not write at all if he could not be a Shakespeare or a Schiller.

2. Education. At the age of 3 Alfred began lessons in reading and writing, subjects which he pursued with great ardor, in order to gain sufficient skill to carry on a correspondence with a beloved cousin. At 6 he attended school for a short time and then, with his brother, was instructed by a tutor. When Alfred was 16 he received his baccalaureate degree, and was then ready to enter upon the law studies for which his family had destined him.

3. School standing and progress. At the College of Henri IV he was the youngest and brightest in his class, and a favorite of the master. So great were his desire to do well and his fear of not succeeding that he was always unhappy and agitated at school. While studying logic and philosophy, he would reason independently, and, often dissatisfied with the professor's ideas, he would work at a subject, penetrating to the bottom, and coming out with a different conclusion from the one generally accepted. At 16 he won second prize in philosophy with a Latin dissertation on "The Origin of Our Feelings."

4. Friends and associates. At school Musset's record, brilliant for one so young, aroused the jealousy of the other pupils who combined against him and tormented him. Paul Foucher, however, was a college friend.

5. Reading. At the age of 7 Alfred and his brother devoured all of the Persian and Arabian stories they could find. Beginning with the legend of the four sons of Aymon, they went on through the whole series of chivalric tales, including *Roland Furieux, Amadis, Pierre de Provence,* and *Don Quixote.* No specific record has been found of later reading.

6. Production and achievement. According to his brother, Alfred wrote his first poem in his 15th year. (See II 3.)

7. Evidences of precocity. His brother says that Alfred de Musset early gave signs of a rare precocity of intellect. "He had oratorical impulses and picturesque expressions in depicting childish woes and pleasures." His reactions at the age of 3 were those of an older child: he was impatient to experience to the utmost every moment of time, and when one day his mother did not dress him quickly enough to meet a tempestuous desire, he stamped his foot and cried, "Hurry, mamma, or my new shoes will be old." Before he was 4 he had his first love affair, "not less profound because it was childish." At the age of 8, he astonished a military officer by a controversy with a colonel's son in which he solved a problem in statics (the cannon-ball test of the Stanford Binet Scale). The officer prophesied then that the little prodigy would one day become a great mathematician.

AI IQ 160 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 Musset began the study of law, then changed to medicine, but, loathing "the dissection of cada-

vers," he gave this up. Thereafter, and upon the encouragement of his drawing teacher, he spent much time at the Louvre in drawing and painting. He read much: Shakespeare, Goethe, Schiller, Byron, Descartes, Spinoza, Cabanis, Maine de Biran, and other writers. Before he was 18, he was "adopted, spoiled, and lectured" by Victor Hugo, Alfred de Vigny, Sainte-Beuve, Mérimée, Charles Nodier, and the Deschamps brothers. At this period Musset began a drama in honor of Victor Hugo, a free translation of De Quincey's *Confessions;* and he wrote poems, among them the famous *Ballad to the Moon.* The next year he printed his *Tales of Spain and Italy,* which was widely criticized. His play, *Nuit Venitienne,* having failed on the stage, he began to write dramatic pieces "to be read in an armchair," for so he was free from conventions and the restrictions of time and space. At 22, he published *Andrea del Sarto, Caprices de Marianne,* now considered a classic, and *Rolla,* very popular with college students. Between his 23rd and 25th year he lived through the stormy love affair with George Sand, and at the end, his happiness irretrievably wrecked, he sought consolation in debauchery. The writings which grew out of this experience, the four *Nuits* and the *Lettre à Lamartine,* gave their author enduring fame.

AII IQ 170 (Rel. coeff. of data, .82)

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WILLIAM PITT (1759–1806)

A Famous English Whig Statesman and Orator

AI IQ 160 AII IQ 180

I. *Family standing.* Pitt's father was William Pitt, first Earl of Chatham, a famous statesman, minister, and orator (pp. 482 ff.). For more than a century the Pitts had been mayors, physicians, parsons, or government officials. The mother, a countess in her own right, was the sister of two distinguished statesmen.

II. *Development to age 17.*

1. Interests. So great was his admiration for his father that the younger Pitt wished to resemble him in all things. He pursued learning so vigorously, both at home and at the university, that it became his father's care to caution him against scholarly excess. In his teens philosophy and history were the subjects to which he was most ardently devoted. Riding was a favorite pastime, encouraged for health's sake.

2. Education. At the age of 7 or earlier, William Pitt, with his brothers and sisters, was instructed by a tutor. When the father's

health would permit he never allowed a day to pass without giving instruction of some sort to his children, and the reading with them of a chapter from the Bible was a daily rite. William Pitt was schooled at home beyond the usual age because of his delicate health. He studied the elements of mathematics and the classics, both Greek and Latin; and his tutor once observed that he grasped the meaning of an author so readily that he never seemed to learn, but only to recollect. At 14½ Pitt was entered at Cambridge, where by his father's request he was given, in addition to the usual program, two hours of special instruction daily by his tutors. After an illness which took him home, Pitt returned to Cambridge (at 15), and there for two years he led an austere life, never missing hall, or chapel, or lecture except for illness, and going into no society.

3. School standing and progress. His university tutor wrote that, although William "was little more than 14 when he went to reside at the university, and had labored under the disadvantage of frequent ill health, the knowledge which he then possessed was very considerable; and, in particular, his proficiency in the learned languages was probably greater than ever was acquired by any other person in such early youth." "In Latin authors he seldom met with difficulty; and it was no uncommon thing for him to read into English six or seven pages of Thucydides, which he had not previously seen, without more than two or three mistakes, and sometimes without even one." The master of Pembroke Hall wrote to the elder Pitt in regard to his son (then 15): "He promises fair, indeed, to be one of those extraordinary persons, whose eminent parts, equaled by as eminent industry, continue in a progressive state throughout their lives." This same master stated that his own experience concurred with that of the tutors, who agreed that young Pitt possessed "extraordinary genius."

4. Friends and associates. Pitt's early associates were the members of his family, his tutors, and the friends of his parents. At 16 he formed a friendship with Lord Mahon, his brother-in-law (six years his senior).

5. Reading. From an early age William Pitt read widely. When he was 10¾, his father sent him, as specimens, examples of contemporary oratory. The first books he read at Cambridge were Thucydides and Polybius.

6. Production and achievement. At 13 Pitt wrote a tragedy in five acts in blank verse, entitled "Laurentius, King of Clarinium," whose whole plot was political with the interest turning on a contest about a regency. Of it Macaulay said, "a tragedy, bad of course, but not worse than those of his friend" (meaning Hayley). The tragedy was twice presented, its five parts sustained by the five brothers and sisters. Letters to his father from college show (at 14) ease and ability in style.

7. Evidences of precocity. At a very early age Pitt exhibited the polished manners and manly behavior of a cultured gentleman. At 7 he was writing letters to his father, and in the same year he delivered an invitation on his own initiative in the style of a man

of the world. Even at this early age he had political aspirations; his tutor, writing of Mr. William to his mother, observed, "Three months ago he told me in a very serious conversation that 'he was glad he was not the eldest son, but that he could serve his country in the House of Commons like his papa.'" A contemporary wrote: "Though a boy in years and appearance, Mr. Pitt's manners were formed and his behavior manly. He mixed in conversation with unaffected vivacity, and delivered his sentiments with perfect ease, equally free from shyness and flippancy, and always with strict attention to propriety and decorum." Lord Chatham "had encouraged him to talk without reserve upon every subject, which frequently afforded opportunity for conveying useful information and just notions of persons and things." Before he was 7, William Pitt was referred to by his mother as "eager Mr. William," and at 7½ William and his sister continually astonished their tutor by their ardor which could not be diminished either by too many tasks or too few. The tutor wrote: "When I am alone reading, Mr. Pitt, if it is anything he may attend to, constantly places himself by me, where his steady attention and sage remarks are not only entertaining but useful, as they frequently throw a light upon the subject, and strongly impress it on my memory." The first Lady Holland is quoted as saying: "Here is little William Pitt, not 8 years old, and really the cleverest child I ever saw." When this remarkable boy was 13 his mother said of him that he enjoyed "with the highest pleasure what would be above the reach of any other creature of his small age." The following year he was described by the poet Hayley as "now a wonderful boy of 14, who eclipsed his brother (three years older) in conversation." The elder Pitt quotes his friend Hollis, who remarked the counsellor's (William's) firm accents, and said: "You see how distinct and clear his ideas are." During a thunder storm the boy was reading to his father and "no more moved his eye out of the book than Archimedes left his geometry when the town was stormed." William Pitt at 14 "was as forward as most lads at 17 or 18."

AI IQ 160 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 Pitt received the M.A. degree without examination, as he was the son of a peer; thereafter for three years he remained at Cambridge studying assiduously. His favorite subject was mathematics; but he read fully on law, philosophy, and classics. He carefully prepared himself for public speaking by translation, study of orations, and comparison of opposing speeches on the same subject. Although he mixed freely with other young men, his chief interest was still scholarly rather than social. When Pitt was 19 his father died, and he inherited a small income. With an uncle's assistance he entered Lincoln's Inn and began the study of law, but from his letters written between the ages of 17 and 21 we know that politics was the most important subject in his mind. He visited Parliament and astonished Fox with the acuity of his criticisms of speeches. At 21 he was called to the bar and left Cam-

bridge. He contested the general election for Cambridge and lost, but shortly afterward received a seat by personal appointment. His maiden speech, an extemporaneous effort, astonished the House; Burke was impressed, and Fox considered Pitt one of the first men in Parliament. Two years later he introduced a bill for the reform of representation, but it was defeated. At this time (aged 23) he announced in the House that he would accept no office less than a Cabinet minister's and turned down an easy post with a salary of £5,000. In the same year he became Chancellor of the Exchequer under Shelbourne, and spoke strongly in favor of peace with the United States; he was offered the premiership but refused to accept it, as his party lacked strength. At 24 Pitt spent six weeks in France, where he was much sought after by persons of distinction. During this year he became Prime Minister, and he held the office continuously for the next eighteen years.

AII IQ 180 (Rel. coeff. of data, .82)

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ALEXANDER POPE (1688–1744)

An English Poet

AI IQ 160 AII IQ 170

I. *Family standing.* Pope's parents were a "plain, honest, middle-class couple, gifted with plenty of common sense, and still more uncommon tact." The father was a linen merchant, who "had the wit to make a small fortune and to retire from business before he was too old to adapt himself to a leisured country life." The mother, who was past 40 at the time of her marriage, was the daughter of a small Yorkshire landowner.

II. *Development to age 17.*

1. Interests. Young Pope was passionately fond of reading and indifferent to fresh air and exercise. It is characteristic of him that at 12, seeing Dryden, he "observed him very particularly, for even then he looked upon him with veneration."

2. Education. The boy acquired a knowledge of his letters from an old aunt; writing he acquired on his own account by copying from printed books; and he learned the rudiments of Greek and Latin (at 8) from the family priest. Pope attended two Catholic schools, one at Twyford and the other in London; the latter under a careless master. A few months under the further instruction of a priest completed, when he was 12, his regular schooling. Thereafter

he took to reading for himself, and, at 15, went to London to study French and Italian, remaining, however, only a few months.

3. School standing and progress. At Twyford, Pope wrote a lampoon on his master, and was flogged for it; thereupon his indulgent father removed him from school. At the London school he made little progress beyond gaining a slight familiarity with Cicero; he spent much of his time attending the theater, studying plays, and making verses.

4. Friends and associates. In his youth Pope associated chiefly with men of mature years, who encouraged and advised him in his versification. Among these were Sir William Trumbull, William Walsh, Henry Cromwell, and Wycherley, the dramatist, who was forty-eight years Pope's senior. Walsh advised his young friend to make it his aim always to be "correct" in his poetry.

5. Reading. At 8 Pope read with rapture Ogilby's translation of Homer; he liked extremely Sandy's Ovid and a part of Statius. After leaving school he read with great eagerness and enthusiasm a great number of English, French, Italian, Latin, and Greek poets, following his own fancy, however, rather than any fixed design.

6. Production and achievement. Pope began writing verses of his own invention farther back than he could remember. At 12 he wrote a play consisting of a number of speeches from the *Iliad* tacked together with verses of his own, and this was acted by his schoolfellows. He was 12 when he wrote the *Ode to Solitude,* and a year later he began an epic poem on *Alcander, Prince of Rhodes,* writing four thousand lines, the surviving examples of which show considerable dexterity in the handling of heroic meter. It was about this time also that he wrote his translations of the first book of Statius' *Thebais,* of Ovid's *Epistle from Sappho to Phaon,* of more than a quarter of the *Metamorphoses,* and of Cicero's *De Senectute.* In his 16th year the young poet began his *Pastorals,* which even in later years he considered the most correct and musical of all his works.

7. Evidences of precocity. "From his infancy Pope was considered a prodigy." Because of the sweetness of his youthful voice the family called him "the little nightingale." In early youth he worked with such intensity and so completely neglected all exercise that his health was shattered by the time he was 17, and a hereditary tendency to spinal trouble and nervous headaches developed. (See II 6.)

AI IQ 160 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* The *Pastorals* soon appeared in print and were much praised by contemporaries. When Pope was 23 his *Essay on Criticism,* printed at least two years earlier, was published, but it did not sell well. Later it was called by Addison "a masterpiece of its kind," and Dr. Johnson said: "Pope never surpassed this early work." When the poet was 24 his *Messiah,* a sacred eclogue, was published in *Lintot's Miscellany,* as were also several poems, including the first draft of *The Rape of the Lock,* two cantos,

"dashed off in a fortnight." *Windsor Forest,* begun eight years earlier, appeared when its author was 25 and already the most fashionable poet of his day. Before he was 26 Pope was a notable, recognized at the clubs and coffee-houses as one of the reigning wits, and already ardently admired by such a critic as Swift.

AII IQ 170 (Rel. coeff. of data, .82)

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TORQUATO TASSO (1544–1595)

A Celebrated Italian Poet

AI IQ 160 AII IQ 155

I. *Family standing.* For four centuries Tasso's paternal ancestors had been people of wealth and influence. Though not wealthy himself, the father, a noted poet, was pre-eminently a courtier. The mother was a beauty of singularly sweet and submissive disposition, with intelligence and prudence "even greater than her virtue and charm."

II. *Development to age 17.*

1. Interests. Although in his youngest years Torquato enjoyed playing practical jokes, delight in study also developed early, and when he was no more than 7 the child was so mad to get to his books that on dark mornings he was conducted to school before daylight by a servant bearing a lighted torch. In his early teens he learned, in the household of a duke, the knightly and graceful arts of a young courtier.

2. Education. Reported to have begun the study of grammar at 3, Torquato was instructed in that year or a little later, by an old priest learned in the rudiments of letters and the humanities. At the age of 6, the boy was sent to a school in Naples conducted by the Jesuits, which he attended for three years. At 9 he began a period of study at home under the supervision of his father. For three years he shared with his cousin the instruction of a priest who was "learned, skilled in both Latin and Greek, up-to-date in his method of education, a gentleman to the backbone, and not a bit of a pedant." At 13 and 14 the boy lived in the household of Duke Guidobaldo, who had taken a great fancy to him, as the fellow-pupil and companion of the Duke's little son of 8. The two were instructed in music, letters, mathematics, and the arts of the courtier.

3. School standing and progress. Tasso made such rapid progress at the Jesuit school that at 7 "he was pretty well acquainted with the Latin and Greek tongues." At 12 he had "entirely completed his knowledge in the Latin and Greek . . . . tongues; he was well

acquainted with the rules of rhetoric and poetry, and completely versed in Aristotle's ethics; but he particularly studied the precepts of Mauritio Cataneo, whom he ever afterward reverenced as a second father."

4. Friends and associates. Living for a short time with relatives in his early teens or before, Tasso attracted the notice of the Collateral of the Venetian Republic, and became intimate with his "learned young secretary," Mauritio Cataneo. In Venice, at 15 and 16, it was his privilege to listen to the conversations of many of the great *literati* who were his father's friends. His special friend was Aldo Manuzio, a boy of 14, who, "cradled in scholarship," had just produced a learned work on the correct spelling of Latin. (See also II 2.)

5. Reading. At 15 or 16 Tasso read Dante to some extent. His annotated copy of Dante still exists; but "the notes do not extend beyond two-thirds of the *Inferno*, and they exhibit no great insight or sympathy."

6. Production and achievement. According to some sources, at 10, according to others, at 7, Tasso made public orations, and composed some pieces of poetry, of which the style is said to have "retained nothing of puerility." He addressed a touching little poem of farewell to his mother at the age of 9, when he left her to join his father at Rome. At 12 he wrote of his own accord on behalf of his father, whose means were small, to a lady famed for her goodness of heart. A sonnet showing considerable facility, written when he was 14, praises the town of Urbino and its court. At 15 and 16 young Tasso assisted his father in correcting proofs of the *Amidigi*. One authority believes that Torquato Tasso began his own *Rinaldo* before he was 17.

7. Evidences of precocity. Torquato is said by historians to have done incredible things at the age of six months—to have spoken and pronounced words clearly, to have thought, reasoned, expressed his wants, and answered questions. At the age of 9, on receiving the Sacrament, he underwent a profound religious experience which brought him "indescribable peace." At that age, he was "so tall and forward" that he might have been taken for 12. (See also II 3 and 5.)

AI IQ 160 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* During the years from 17 to 20 Tasso attended the Universities of Padua and Bologna, but he evidently found little relish in the study of law, which he followed only because of his father's wish. At 17 in the course of a brief love affair he wrote a series of sonnets; *Rinaldo*, composed in ten months' time, was successfully brought out when he was 18; and at 20 at the invitation of Gonzaga, a patron of learning, he joined a literary coterie which met at his patron's house. During the progress of a second brief love affair, he wrote a second series of beautiful sonnets. Tasso spent his early twenties in the service of Cardinal Luigi d'Este, Duke of Ferrara; there he was much in the company of the Duke and the princesses, and without neglecting the more serious pursuits to

which a magnificent library gave him access, he was able to enjoy the lighter pleasures of court life as well.

AII IQ 155 (Rel. coeff. of data, .53)

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CHRISTOPH MARTIN WIELAND (1733–1813)

A German Poet and Author

AI IQ 160 AII IQ 160

I. *Family standing.* Wieland's great-grandfather was a man of consequence and property, and the mayor of his city. The grandfather and father were both village pastors, the latter an orthodox pietist. The father was interested in science and philosophy. Wieland's mother, daughter of a major in the Baden army and granddaughter of an apothecary and architect, was a lively, witty, and elegant lady.

II. *Development to age 17.*

1. Interests. Wieland, as a child, was serious-minded and did not care for foolish sports. From his mother he learned love of cleanliness, and he preferred to go hungry rather than muddy himself by getting the pennies for the baker that he dropped in a dirty puddle. He loved the beauty of natural surroundings. In the pietistic Magdeburg school he was affected by a mystical religious atmosphere. At 15 he became a materialist for a time, believing nothing without scrutiny and proof. He even doubted the existence of God, and this cost him many sleepless nights and tears. The elder Wieland had planned for his son to study theology, but, partly because of the boy's enthusiasm for unorthodox views, he finally decided on law as a profession for him.

2. Education. The boy's first teacher was his father, who taught him to read and write when he was 3, began Latin with him some time before he was 6, and also developed in him a love of science. At home the boy had to learn the Bible and hymnal almost by heart. At 13½, and before going to the famous Kloster Bergen School near Magdeburg, Wieland had studied Latin, Greek, Hebrew, mathematics, logic, and history under his father and other teachers. He had also learned to draw.

3. School standing and progress. Wieland's teacher, the "fat little Rector," was horrified by the 10-year-old's presumptuous criticisms of Virgil and Horace, and two years later the boy understood his Horace better than did his instructor. At Magdeburg, Wieland made good progress in literature and was especially noted for his achievement in Hebrew and Latin. He made good German metrical translations from Cicero. History and geography were zealously followed.

4. Friends and associates. At 13 Wieland fell in and out of love with a 15-year-old postgirl who sang folk songs prettily. At Magdeburg, one teacher, especially, understood him and was a second father to him, while on his holidays at Erfurt, a witty, optimistic relative, Dr. Baumer, cultivated his tendency to wide reading and critical thought. The boy was always fond of association with his elders. At 16 Wieland became engaged to his cousin Sophie, a brilliant, charming girl, two years his senior, whose interest and encouragement spurred him to write *Die Natur der Dinge,* published two years later.

5. Reading. As a child Wieland was required to read daily in Scriver's *Seelenschatz* and during Lent in Rambach's *Considerations on the Passion.* At 8 he read Nepos' life with fiery enthusiasm and devoured the works of Gottsched. At 10 he began to read Virgil and Horace; from 13 to 15 he studied Livy, Terence, and Virgil, and with special interest Cicero, Xenophon's *Cyropaedia* and Socrates' *Memorabilia.* Of more modern works, those of Brockes, the philosophical *Lexicon* of Schneider, volumes of Bayle and Voltaire (these in secret), Breitinger, Haller, and Bodmer were read between the boy's 11th and his 16th year. At 15 he read the *Tatler, Spectator,* and *Guardian,* as well as *Don Quixote,* and became acquainted for the first time with Klopstock's *Messias,* studying it with greater enthusiasm than he had bestowed on any previous work.

6. Production and achievement. (See II 4.)

7. Evidences of precocity. Wieland's first love (at the age of 1) was his ugly nurse, and his second was his mother. His earliest recollections included a clear picture of the flowering meadows of his birthplace and a definite memory of a young pastor who took him before he was 3 for a walk and let him gather yellow blossoms.

AI IQ 160 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 Wieland went to Tübingen on a scholarship, but finding that the lectures were not to his taste and that attendance required too much valuable time, he did not even register at the university, staying instead in his room, where he read and wrote poetry. He studied Leibnitz and Boyle, read Lucretius and *Anti-Lucretius* by Polinac and Pope's *Rape of the Lock,* and on these modeled his own work. *Die Natur der Dinge,* a didactic poem, he sent to Dr. Meyer in Switzerland, who was delighted with it and had it printed. His second poem *In Praise of Love,* written in flowery, musical Alexandrines, contains the whole philosophy of the 17-year-old author. Its appearance was greeted with enthusiasm. His next poem, an epic, *Hermann,* although favorably criticized by Bodmer, the author decided to revise, but other interests intervened and it remained unfinished. The next year several poems were written in Alexandrines, unrhymed iambics, hexameters, and free verse—all contributing to an anatomy of love and showing that the author had studied literature as well as his own heart. Wishing to hasten the time when he might marry his Sophie, he thought of becoming a school-teacher. No position offered, and at 19 he gave up the scheme

for a time and went to Zurich to visit the poet Bodmer. A little later he learned of Sophie's engagement to another. His grief was poured out in a series of poems, three hymns, two odes, and a number of other works, largely on religious subjects. His authorship of a plan for an educational institution (published anonymously) was recognized because his style was already widely known. In the meantime, the youth (aged 20) was fêted in Zurich as a poet of distinction. He read and studied and made many friends among literary people. *Cyrus* and the successful play, *Johanna Gray*, are his most important works of this period. At 25 Wieland left Zurich and went on to Bern, where he had accepted a teaching appointment.

AII IQ 160 (Rel. coeff. of data, .75)

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JOHN QUINCY ADAMS (1767–1848)

The Sixth President of the United States

AI IQ 165 AII IQ 165

I. *Family standing.* John Quincy Adams' father was John Adams (see p. 273 for paternal ancestry). The mother, Abigail Smith, came of Puritan stock and numbered among her forebears men and women of strong character and of marked ability, including a distinguished legislator and a noted clergyman. Abigail herself was a woman of striking personality and superior talents, whose delicate health had prevented her from receiving more than a slight education.

II. *Development to age 17.*

1. Interests. At the age of 7 John Quincy heard the battle echoes of Bunker Hill, saw the flaming ruin of Charlestown, and was deeply impressed by the call of patriotism. His mother taught him to repeat daily, after the Lord's Prayer, the ode of Collins on the patriot warriors, verses which he never forgot. It was characteristic of the serious boy that he was vexed with himself (at the age of 10) because his thoughts were "running after bird eggs, play, and trifles."

2. Education. In his early years, as well as later, the boy learned much by fortunate association. His mother exercised great authority over him, and she was his first teacher. Three young law students talked with him and gave him practical assistance during his earliest school years. The trend of his thought at this period is shown by an inquiry in a letter to his father (written when he was 10) in which he asks advice as to how he should "proportion his studies and his play." During a first visit abroad, at the age of 11, Adams entered school in Passy near Paris, where French, Latin, dancing, fencing, music, and drawing were taught. The next year he and his brother Charles attended an ancient Latin School in

Amsterdam, spending the vacations with their father and under his direction studying Greek at breakfast and Euclid at supper. At 13 young Adams spent five months at the University of Leyden, where, confining himself little to the regular routine, he worked forward independently. Later he spent more than a year in St. Petersburg studying and reading by himself as there were no schools to attend, and beginning at this time the study of German.

3. School standing and progress. At Passy, Adams gained great fluency in French. At Amsterdam he had an excellent master in Latin and Greek, who was "pleased with him and his brother." At this time he transcribed a *Greek Grammar* of his master's composition and also a treatise on Roman antiquities.

4. Friends and associates. During prolonged absences of his father, John became his mother's confidential companion. He was much with older people, both at home and, later, when accompanying his father on missions abroad.

5. Reading. In his 11th year John Quincy's pleasure and interest were already developed, for at this time he requested a blank book in which to keep record of "the most remarkable occurrences he met with in his reading"; at the same period he reports starting the third volume of Smollet. On his trip to Russia (aged 14) he read Voltaire's description of St. Petersburg and grave works of history like those of Hume and Robertson; he translated several of Cicero's orations and transcribed favorite passages from the most noted of the English poets.

6. Production and achievement. On shipboard, when returning to America (aged 12), Adams taught the French ambassador English, astonishing his distinguished pupil by his knowledge and mastery of linguistics. Three months later he began his famous *Journal*, which was thereafter continued throughout his life. Even his earliest notes and observations show maturity of thought and interest.

At the age of 14 young Adams acted as Dana's private secretary and interpreter on a mission to Russia, and two years later he became one of his father's secretaries during the peace negotiations at Paris (1783). At the age of 15 the young diplomat, alone, made a six months' journey from St. Petersburg to Paris via Stockholm and Copenhagen, and in a lengthy letter describing the journey discusses intelligently such topics as the treatment of strangers in Sweden, the policy of the King, Denmark and its government, Hamburg and its commerce, and the wine-cellars of Bremen. Extracts from his diary show that John Quincy was, at 17, a careful observer, a sober critic endowed with balanced rational judgment.

7. Evidences of precocity. See II 6.

AI IQ 165 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* At the age of 18 John Quincy Adams returned to America. After spending six months in preparatory study at Haverhill, he was admitted to Harvard in the junior class. He took up the study of languages, mathematics, natural philosophy, and metaphysics, and engaged in forensic disputations. He soon

attained sufficient distinction to be chosen by his class as one of four honorary "theses collectors." After less than two years in residence Adams was graduated with honor, and he delivered at the Commencement exercises an oration on "the importance and necessity of public faith to the well-being of a government." From 20 to 23 he studied law in Newburyport with an eminent jurist, Theophilus Parsons, and was thereafter admitted to the bar. The draft of an address presented to President Washington by the citizens of Newburyport was prepared by Adams, then in his 23rd year. Before he was 25 young Adams had gained fame at home and abroad by articles published in the *Boston Sentinel* in which he refuted the arguments of an older political writer; so able were his discussions that they were attributed to his father, then vice-president of the United States.

AII IQ 165 (Rel. coeff. of data, .82)

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HENRI BENJAMIN CONSTANT DE REBECQUE (1767–1830)

A French Political Writer, Orator, and Politician

AI IQ 165 AII IQ 160

I. *Family standing.* Constant's paternal grandfather was a lieutenant-colonel in the Dutch army, a religious, upright man of high principles. His father, a very intelligent, but rather eccentric person, likewise held a commission in the Dutch service. The maternal grandfather was also an army officer.

II. *Development to age 17.*

1. Interests. Almost from infancy Constant evinced keen interest in intellectual matters, and at the age of 7 he began to dream of literary fame. He early displayed uncommon musical talent; and it is said that "had he taken enough interest in music, he could have become a great master." From the age of 14 he developed a taste for gambling and other forms of rakishness, for which his previous upbringing more than sufficiently accounts.

2. Education. Constant was first placed under the care of a tutor at the age of 5. His teacher, though erratic and violent, must have had some ability, for he conceived and executed the novel project of teaching his pupil Greek while leading the boy to believe that he was himself "inventing" the language. In his 8th year Benjamin was taken to Brussels by his father and there turned over for guidance to a former surgeon of the father's regiment. Under the instruction of a skilful musician the boy now became highly pro-

ficient on the piano. His tutor, the former surgeon, was however discovered to have become involved in a scandal, and so after a brief stay at the home of his music teacher, the lad, now 9 years of age, was consigned to a French lawyer. This person in turn proved to be just such a character as the Brussels surgeon. He taught the boy nothing, and at the age of 12 Constant "left the home of his third tutor, convinced for the third time that the people who had been charged with his instruction were themselves very ignorant and very immoral men." The elder Constant removed his son to Switzerland and there entrusted him to the care of an unfrocked monk who had escaped from his monastery; under this man's instruction Constant made "fair" progress during the ensuing year. At the age of 13 he was enrolled at Oxford, but his father soon perceived that he was still too young to benefit by the opportunities offered in English university life. Accordingly an English tutor was procured under whose charge the boy remained for over a year in Switzerland and Holland. Then, after some temporary instruction from still another master, Constant (aged 14) was enrolled in the University of Erlangen. An introduction to the court of the Margrave of Baireuth led to participation in dissipations which interfered with the pursuit of study, and so the elder Constant eventually took his son (aged 15¾) to Edinburgh and enrolled him in the university, where he remained in residence for eighteen months. The first twelve of these made "the most pleasant year of his life." "Work was fashionable among the young men at Edinburgh"; and Constant formed several very close connections with men who later became famous.

3. School standing and progress. We find Constant at the age of 10 writing to his grandmother that he has "learned Latin and Greek and all that one has to know." At the University of Erlangen he seems to have made fairly satisfactory progress, and he was industrious during his first year at Edinburgh. (See also II 5 and 7.)

4. Friends and associates. In the course of his wanderings from country to country, from tutor to tutor, and from university to university, Constant made many friends, unfortunately not all of the highest character. He evinced as early as his 10th or 11th year a precocious interest in the opposite sex. (See also II 2.)

5. Reading. At 9 Constant wrote his grandmother that he was reading Roman history in addition to Pliny, Seneca, Cicero, and Homer, "whose poetry I love, and who amuses me while giving me great ideas." At the same age, during his brief stay at the home of his music-master (see II 2), he discovered in the neighborhood a library "which contained all the novels in the world and all the irreligious works then so much in the fashion." He says: "I used to read for eight or ten hours a day everything which came to hand, from the works of La Mettrie to the novels of Crébillon, and my head and my eyes have felt the effects of it all my life."

6. Production and achievement. Letters from Constant to his grandmother written from the boy's 10th year onward are preserved; they are copious, gossiping, and sparkling with precocious cleverness. Between the ages of 7 and 13 the boy wrote at least

eight productions of which the titles have been preserved, including a prayer, a tragedy, a moral meditation, a pastoral, and an unfinished heroic romance in five cantos, entitled "The Cavaliers." (The two last mentioned were composed at the age of 12.) Before he was 12 Benjamin wrote his grandmother that "between times" he was composing "an opera, both words and music." He continued: "It will be very beautiful, and I am not afraid of its being hissed."

7. Evidences of precocity. One of Constant's cousins afterward wrote of him: "His infancy caused much disturbance, as he had an inflammable disposition and showed a precocious development which demanded careful guidance. . . . . When his burning activity was well directed he succeeded in anything he tried and success pleased him immensely." At the age of 7 he already yearned to be famous, and "talked to his father and grandmother very seriously about his works, science, and his occupations." Before he was 8 he could play "a difficult sonata" on the piano, and at 9 he could "read anything (i.e., any music) at sight." Even his earliest letters to his grandmother display rare ability. (See also II 2 and 6.)

AI IQ 165 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Young Constant (aged 17½), weighted with heavy gambling debts, left Edinburgh and after some weeks in London arrived in Paris, where he became acquainted with a dissolute Englishman and was soon again involved in debt and folly. Recalled by his father to Brussels, and thence, in consequence of a love affair, to Switzerland, he began to apply himself to writing a history of polytheism, but ignorance and laziness precluded the production of more than a few lines. Continued love affairs became a further load on his pen. His father finally appeared and moved the young man to Paris. Here he spent a pleasant enough time; it was here that he entered a *liaison* with a woman 27 years his senior. He indulged in other love affairs and in gambling until, hearing of the approach of an envoy from his father, he fled to England and thence to Edinburgh. After a voluntary exile of short duration, he returned to Paris and his elderly charmer.

At the age of 20½ Constant became chamberlain at the Court of the Duke of Brunswick, where his chief occupation seems to have been, as before, indulgence in amours. Very shortly after he assisted in winning the acquittal of his father, who had been accused of embezzling regimental funds, and so complete was the elder Constant's exoneration that he was reinstated with the rank of general. At 22 Benjamin married Baroness Chramm, but broke the bond five years later when he began his *liaison* with Mme. de Staël and started upon his political career.

AII IQ 160 (Rel. coeff. of data, .75)

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GABRIEL HONORÉ DE RIQUETTI, COMTE DE MIRABEAU (1749–1791)

The Greatest Orator of the French Revolution

AI IQ 165 AII IQ 175

I. *Family standing.* The Mirabeau family belonged to the nobility. They possessed many and unusual talents, but they were hot-blooded, with a streak of madness. Mirabeau's father was brilliant, clever, severe, ambitious, self-confident, and vicious. His mother, whose family also belonged to the nobility and among whose relatives were a number of insane persons, was indolent, slovenly, frivolous, and passionate.

II. *Development to age 17.*

1. Interest. (See II 5 and 6.)

2. Education. At 4½ Mirabeau's education began under a tutor. The boy progressed rapidly, and at 14 his instruction was directed by a "number of choice masters." His wild nature (his "madness" according to his father) was, however, never more than partly concealed by the restraint of training, and after the difficult early years as the ugly duckling in a family, none of whom understood him, Mirabeau (at 15) was sent to Versailles to be educated in the household of a M. de Sigrais. At the end of three months Sigrais announced to the parents that he would remain the boy's jailer as long as they wished, but he could do nothing with him educationally. And so the youth was sent, before he reached his 16th birthday, to a boarding-school in Paris. At the close of his first year, for reasons unstated, Mirabeau was to be removed in order that he might be submitted to more severe discipline elsewhere. But his comrades sent a deputation to the Marquis and secured a suspension of the sentence.

3. School standing and progress. In his earlier school years Mirabeau appears to have been conspicuous for his strange behavior rather than for his superior intellect. It was left for a master of mathematics in the Paris school to distinguish him from his fellows "on account of the nature of his questions and the promptness with which he found the solution for a problem." Outside of the mathematics class, however, the boy accomplished practically nothing, for most of the regular school work failed to appeal to his imagination and appeared to him insipid.

4. Friends and associates. No specific report. Teachers and schoolfellows at Paris "were (so) attached to him." (See also II 3.)

5. Reading. The mathematics teacher at the Paris school, seeing Mirabeau (aged 15) totally unoccupied, proposed that he work with him, and so they came to read together Locke's *Essay on the Human Understanding.* Mirabeau, awakening as from a dream at the conclusion of the reading, cried: "There is the book that I needed."

6. Production and achievement. At 5½ Mirabeau was told by his tutor to write anything that came into his head; the composition written on this occasion is preserved and shows mastery of grammar,

an extensive vocabulary, and a range of sentiment far beyond his years. Before the age of 15 the boy began writing energetic verse with great facility, but after reading Locke he gave this up as a "talent that had been injurious to him."

7. Evidences of precocity. An extraordinary creature at birth, Mirabeau was huge with a disproportionately large head and an ugliness that commanded attention. Two teeth were already cut when he was born. When this extraordinary boy was 5, the father wrote of him that he was remarkably inquisitive and very active and that his knowledge was the talk of all Paris. He added, however, that the talented youth had "little character" and required careful supervision. "He keeps us busy, but we have an eye on him." Shortly before he was 8 Mirabeau was confirmed. It was explained to him at this time that God could not make incompatible things, as, for example, a stick that had but one end. "I asked if a miracle was not a stick that had but one end. My grandmother never pardoned me for that." At 9 the young prodigy was uglier than ever, "in a marvellous manner." His mother on one occasion made some declaration to him in the name of his future wife; he replied that he hoped she would not look at him *en visage;* his mother asked ingenuously, "Where would you have her look at you?" All laughed, but he retorted: "The inside will help the outside." A severe illness at 10, during which the father wrote "the worst symptom is that he is as reasonable as if he were 30 years old," reformed his character from its earlier ill-humor, baseness, and falsehood. A little later the father wrote: "This child, although turbulent, is gentle and facile, but of a facility that inclines to worthlessness." At 13 the boy had apparently relapsed into his earlier erratic ways, and the father speaks of him as "this fiery, wrong-headed eldest son, each day more troublesome and insane."

AI IQ 165 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Mirabeau (at 17) delivered a eulogy of the Prince of Condé which was considered superior in clearness and elegance to similar productions of his father. At 18 he entered the army, and a year later was commissioned a second lieutenant; but shortly afterward he was imprisoned for seven months for desertion. At the age of 20 he was released in order to join an expedition to Corsica where, although he saw very little fighting, he demonstrated nevertheless a "genius for war." His major said that he had "never known a man with greater talents than the Comte de Mirabeau for the profession of arms, if time had rendered him discreet." A little later Mirabeau's uncle declared his nephew full of repentance for his past faults, and stated further that as for his intellect "the devil has not as much." This uncle was of the opinion that Mirabeau would become a very great man in almost any field he might choose.

During the next two years (his 22nd and 23rd) Mirabeau enjoyed his father's confidence and impressed his parent by the enormous amount of work he could accomplish. At 22, after receiving a com-

mission as captain, the youth visited Paris and Versailles, where he spent much time in the libraries. Strained relations now began to arise between father and son, and conditions were not improved by the latter's marriage (at 23). In the following year a son was born, and debts began to accumulate. The Marquis obtained an order forbidding his son to leave the castle, and later procured his exile. During his honeymoon and term of exile Mirabeau wrote his *Essay on Despotism* and published it in Geneva. Afterward he condemned this moment of daring. At the time of its first publication the work was so popular because of its outspoken criticisms of the King and the state of France that it ran through two editions and created a sensation, not only in Switzerland, but in France as well.

AII IQ 175 (Rel. coeff. of data, .75)

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BARTHOLD GEORG NIEBUHR (1776–1831)

A Celebrated German Historian, Philosopher, and Critic

AI IQ 165 AII IQ 175

I. *Family standing.* Although Niebuhr's father belonged by birth to the Danish peasantry, he became a lieutenant of engineers and won such distinction for his scholarship and scientific studies, made in Egypt, Arabia, and Syria, as to entitle him to mention in the leading encyclopedias. He is described as self-sacrificing and unexacting, an irreproachable character. The mother, a woman of education and refinement, was the daughter of a Danish royal physician.

II. *Development to age 17.*

1. Interests. Between his sixth and his eighth year, Niebuhr was interested in a variety of pastimes, in which his father often participated as guide or patron. From watching and questioning during the building of a new house, Barthold learned to draw architects' plans; with his father's assistance he learned to build miniature fortifications in the garden, and to attack and defend them according to rule; and he began the study of numismatics when on Sundays he was permitted to take casts from a collection of seals and coins which his father had collected for the purpose. The boy's activities were, however, not all of so serious a nature, for often in the early years neighbor children were invited to join the family in the evenings, and then dancing to the father's violin accompaniment offered diversion and exercise. Niebuhr's poetical interest was first aroused when he was 7 (see II 7), and amusements he contrived at that age show a rare combination of developing poetical insight with accurate practical observation. (See II 6.) An enthusiastic interest in German literature began at about the same age. The boy's

interest in politics developed in his 12th year and became so strong during the period of the war with Turkey that he repeated war intelligence aloud in his sleep. From 11 to 16 his interest extended to history, politics, literature, geography, statistics, and military science, and he pursued all of these studies with eager devotion.

2. Education. "The parents, especially the father, seem to have devoted themselves to the training and education of their children with an attention rarely seen." Neibuhr began in his 4th and 5th years to learn the three R's from a tutor, his sister sharing in the lessons. Their father soon began to instruct the children in geography; he told many and vivid stories from history, especially the history of the Orient; he taught his son English, French, a little mathematics, and at 6, the Greek alphabet; and he conversed with him on all topics of the day, training him to make maps and to work out military engineering problems. Beginning at the age of 7, Niebuhr was taught French by Madame Boje, a distinguished friend of his parents. In his 8th or 9th year he began to receive private lessons from one of the masters of the Gymnasium. At 13 he entered the Gymnasium in the highest class, but in the following year the school director advised removing him from the regular school duties, and offered to aid his self-directed progress by a daily private lesson of one hour. After this plan was adopted, the lessons were continued until Niebuhr was 18 and ready to enter the university. In his course of private study the youth included the classics, modern languages (English, French, German, Spanish, Portuguese), mathematics, and wide reading on many subjects. At 15 he was confirmed. The following year he spent three months in the Busch School of Commerce in Hamburg. Thereafter he devoted much time to collating manuscripts sent him for the purpose by two distinguished scholars, Munter and Heyne, the latter of whom was so impressed with the ability of the young scholar that he wished to assume the direction of his studies.

3. School standing and progress. Niebuhr learned rapidly and with interest all subjects except mathematics. At the age of 6 he learned the Greek alphabet in a single day and had no further trouble with it. At this age so passionate and sensitive was he that a single slip in repeating his lessons, or any reference to his "scribblings," would produce an impetuous storm. At 7 or 8 he was already superior to his tutor in the classics, and was known to have assisted the latter in reading beyond the day's task. In the Gymnasium, Niebuhr (at 13) found himself by far the youngest and by far the most advanced in his class. From 14 to 18 he carried on his studies for the most part privately, assisted, however, by the guidance of his father and the school director. In the Hamburg School of Commerce, Niebuhr (at 16) was out of his element, for the noisy life irritated him; after a few months, he persuaded his father to permit his return home.

4. Friends and associates. The Niebuhrs associated with intelligent and highly cultivated people, who took a great interest in young Barthold. Boje, editor of the *Deutsches Museum,* who was a man

of high intellect and taste, and an intimate friend of the father, awakened in the boy an aesthetic and poetical turn of mind. The poet Voss, Boje's brother-in-law, recognized Niebuhr's remarkable talents and assisted him by his counsel, especially in his classical studies. At school, Niebuhr (at 13) was a favorite with his schoolfellows. At 16 he met Prehn (several years his senior), secretary to the prefecture, and the two became close friends, for they had a common interest in the study of the political and economic conditions of their native province.

5. Reading. In addition to the opportunities for reading afforded at home, Niebuhr had access to Boje's library which was rich in English, French, and German books. During his teens his reading was largely in the fields of history, politics, literature, statistics, geography, and military science.

6. Production and achievement. From a tender age Niebuhr displayed literary and artistic ability. In early childhood he covered such waste paper as he could find with original writings and drawings; then he made copy-books in which he wrote essays, mostly on political subjects, and still later he drew maps, promulgated laws, waged wars, and made treaties of peace for an imaginary empire, Low England. Before he was 11 this boy had written translations and interpretations of the New Testament, political phrases from the classics, sketches of little poems, a translation of Poncet's *Travels in Ethiopia*, and a historical and geographical description of Africa. (The last two were birthday presents to his father.) At the age of 12, he was frequently engaged in making out statistical tables, lists of mortality, etc., and he assisted his father in making state revenue calculations.

7. Evidences of precocity. Before he was 5 years old Niebuhr had distinguished himself by his quickness, and by his ready and sure apprehension of what he learned. He was soon ahead of his sister, who was two years his senior, and after finishing his tasks more quickly than she, he would dance roguishly round her, singing, "Rest is sweet when work is done." The father quotes his friend Boje to the effect that he "does not know the equal of the 6-year-old Niebuhr." The elder Niebuhr realized that his son required unusual handling, and he was concerned to give the rapidly developing mind and body the requisite guidance and training. Just before he was 7, the boy heard Boje read *Macbeth* aloud to the family. Seeing Barthold's interest, the distinguished literary scholar took pains to make the work intelligible to his young hearer. When the reading was finished Niebuhr sat down and wrote out the whole tale on seven sheets of paper without omitting a single important point, "and certainly without any expectation of receiving praise for it; for when his father asked to see what he had written and showed it to me [Boje], he cried for fear he had not done it well. Since then he writes down everything of importance that he hears from his father or me. We seldom praise him, but just quietly tell him where he has made any mistake, and he avoids the fault for the future." Before he was 8, Niebuhr was able to read any English book without help.

Predictions made in his 12th year as to movements of the armies in the Turkish war were usually fulfilled, for the boy's acquaintance with the art of war, the geography of the country and the character of the commanders was already minute and reliable. Some letters recording his skilful pronouncements are still extant. The war in the Netherlands excited even greater interest and aroused as great study. At 11 or 12 Niebuhr was often called upon in conversations between his father and other distinguished men to give information on geographical, statistical, historical, and other subjects, and this he did so ably that all were astonished. His statistical knowledge, especially, was extraordinary. During his father's serious illness, Niebuhr (at 16) carried on the financial part of his father's official duties. The boy's ability to predict with remarkable accuracy the outcome of popular movements and military campaigns during the course of the French Revolution excited the astonishment of the eminent statesman, Count P. A. Bernstorff.

AI IQ 165 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From his 16th to his 18th year Niebuhr was engaged in study at home; at 18 he continued his academic pursuits at the University of Kiel where he found his position and surroundings more agreeable than at Hamburg, and where he made important friendships with Dr. Hensler and Frau Hensler (the Doctor's daughter-in-law), with Professors Cramer and Reinhold. He studied history, law, philosophy, physics, chemistry, philology, and aesthetics. Of these, history and philology were his favorites. About this time he is known to have expressed the view that a universal history ought to be written.

At the age of 19 Niebuhr received an invitation from the Danish minister of finance to become his private secretary. This post he accepted, discharging his duties to the complete satisfaction of his master, Count Schimmelmann. But when a little later he was offered a secretarial position at the Royal Library, he gave up his duties with the minister because the new position promised to provide more opportunity for both study and travel. While performing his duties in the library Niebuhr planned and carried out an exacting course of study and conduct. During his 23rd and 24th years he traveled in England where he strove to become informed on even the minutest details of all matters connected with the country and people. He went from London to Edinburgh, where he studied chiefly mathematics and natural sciences. Returning to Denmark in his 24th year, he was granted a government position. He married soon after. He was offered a professorship in the University of Kiel, but declined it, preferring for various reasons to continue his government service. In his spare time Niebuhr made a study of Greek history and the Greek constitution.

AII IQ 175 (Rel. coeff. of data, .75)

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FRA PAOLO (PIETRO) SARPI (1552–1623)

A Venetian Historian

AI IQ 165 AII IQ 175

I. *Family standing.* The historian's father, Francesco Sarpi, was a man of hardy frame and bold nature, better fitted for the arts of war than those of peace which he pursued. He died, an unsuccessful merchant, leaving the family in straitened circumstances. The mother, Isabella Morelli, was of a Venetian family of good standing. She was endowed with a "retiring, gentle, devout, and contemplative" spirit, was intellectually superior, and possessed of "sagacity and judgment." Her famous son is said to have strongly resembled her.

II. *Development to age 17.*

1. Interests. From his earliest years Sarpi's absorbing enthusiasm was for learning in all its branches. He took no part in the ordinary boys' games and sports, for "he was delicate, retiring, serious, silent, thoughtful, almost melancholy."

2. Education. His first teacher was his mother, and his second was his maternal uncle, Ambrogio Morelli, priest and master of a superior Venetian school. The boy was sent at the age of 12 as a day scholar to Fra Gianmaria Capella, a friar in the Servite Monastery. He began a five-year novitiate there some months later, continuing ardently his Latin, Greek, Hebrew, philosophy, and mathematics, to which were later added theology and many of the sciences.

3. School standing and progress. Sarpi finished his uncle's school at the unusually early age of 12, after holding throughout his course the place he held through life, "and that was the top of his class." His remarkable abilities, his industry and his perseverance were recognized, for "he mastered with ease everything put into his hands" and "his powers of memory were extraordinary." He disclaimed tales of his marvelous retentiveness by stating that he could repeat no more than thirty lines of Virgil after a single hearing. "He had beaten all his companions in every department of study," for he was consistently an excellent scholar, and he had become, at the early age of 13, a critical thinker as well. Even before the close of his novitiate, he saw through the fallacies of accepted philosophical systems and was able, by his "just and powerful" criticisms, to convince his master of their inadequacy. So completely did he convince Fra Gianmaria, an ardent follower of Duns Scotus, of the errors in that schoolman's reasoning that the master's faith was shaken. Fra Gianmaria used to say: "I have learned not a little from Paolo in the very subjects I am teaching him." Sarpi was chosen thrice as public disputant, two of these elections occurring before his 16th year.

4. Friends and associates. Sarpi's early companions were the young aristocrats of his uncle's school, rich boys, indifferent to study, and addicted to luxury. He had none of their tastes and yet he was a favorite among them and formed life-long friendships with several of their number, including Andrea Morosini, later a noted historian, and Leonardo Donato, afterward a Doge of Venice.

5. Reading. Sarpi was passionately devoted to reading. So conspicuous was this attachment that there was a saying among his schoolfellows, "All we others to our frivolities, and Pierino to his books."

6. Production and achievement. Pietro's mother and uncle wished the boy to become a priest, but he was intent on entering a monastery, where he would not be tied to the performance of church offices. He wanted to combine the advantages of the cloister with a world of action. He was encouraged in his design by Fra Gianmaria, his teacher, "who knew the gain he would be to the order." The resistance of the family was finally overcome and, at the age of 13, Pietro, changing his name to Paolo, entered the novitiate. On each of his two early appearances (aged 13 and 15) as public disputant for the Servites, Sarpi manifested an immense knowledge and an ingenuity and ability which at once confounded every opponent set up against him, and "amazed and delighted" the great and distinguished audience.

7. Evidences of precocity. (See II 1 to 6 inclusive.)

AI IQ 165 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 18, after a third brilliant exhibition as public disputant, Paolo was appointed by Bishop Boldrino to the chair of Positive Theology and Sacred Canons in his cathedral, and the great Duke Gonzaga attached him to the Mantuan Court as his private theologian. The Superior of his Order in Venice consented to his accepting these positions, and the brotherhood showed its "appreciation of his worth and learning" by assigning him a yearly stipend for the purchase of books. He discharged his offices "with exceptional ability and success," and his fame as a Hebrew and Greek scholar and as a theologian soon spread "far beyond the walls of Mantua." On one occasion his superior knowledge and ability excited the jealousy of a certain friar who denounced him to the Inquisition, but without success, for Sarpi was fully vindicated, and the local priests who had taken up the friar's quarrel were advised to let the professor alone. Just after becoming a priest, Sarpi was appointed (aged 22) to the chair of philosophy in his old monastery and before returning to Venice was offered the position of confessor in the cathedral at Milan, which he refused. His lectures to the Servites "were so popular that he drew many lay students and men of business from the Rialto to hear them." Before he was 27 Sarpi had sounded the depths of a very large number of diverse sciences; mathematics and anatomy particularly fascinated him. The University of Padua recognized his remarkable ability by conferring upon him, the youngest man ever so honored, the degree of Doctor of Theology. He was, at 26, the acknowledged head of the science of mathematics in Italy.

AII IQ 175 (Rel. coeff. of data, .60)

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THOMAS WOLSEY (1475–1530)

An English Cardinal and Minister of State

AI IQ 165 AII IQ 165

I. *Family standing.* Wolsey's father is reported to have been "an honest poor man," and "a man of good position, probably a grazier and wool merchant, with relatives who were also well-to-do." Of the paternal ancestry there is no further record, and no information has been found in regard to the mother or her forebears.

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. No record has been preserved of Wolsey's first schooling, but of his later progress it is written that "he was so early sent to the University of Oxford that he took his Bachelor's Degree in arts there when he was 14 years old, at an age when few members now of the most forward capacity are known to be admitted."

3. School standing and progress. Wolsey's earliest scholarship was marked by "quick and extraordinary proficiency," for he possessed "surprising capacity." At Oxford, "he soon got a name of peculiar distinction . . . . and was commonly called the Boy Bachelor." "Soon after he had taken his degree of Bachelor of Arts and made an extraordinary progress in logic and philosophy, he was elected Fellow of Magdalen College in Oxford, and had not long been Master of Arts before the care of the school adjoining to that college was committed to him." (See also II 2.)

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. "He very early discovered a docile and apt disposition for learning, which encouraged his parents to send him to school and to give him such an education . . . . as might prepare him for the university."

AI IQ 165 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* (See II 3.) Wolsey continued his university career with sufficient success to win (at 27) an appointment as bursar of the college. He continued also in his position of master of the grammar school attached to the college, which he had held since his election as Fellow of Magdalen.

AII IQ 165 (Rel. coeff. of data, .11)

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CHAPTER XXI

CASES RATED AT AI IQ 170 TO 180

THOMAS CHATTERTON (1752–1770)

An English Poet and Prose Writer

AI IQ 170 AII IQ 170

I. *Family standing.* The Chattertons had for generations belonged to a class of worthy unskilled workers, chiefly sextons. The poet's father, however, had by his abilities raised himself above the position of his forebears. He was a great reader with an inclination for antiquarian pursuits; he became a writing master and a "chaunter." It was said that he was "eccentric." Chatterton's mother had "no shining abilities." She was fairly well educated, and after her husband's death, supported his mother and her two children by teaching and by clever needlework.

II. *Development to age 17.*

1. Interests. Even before he was 5, Thomas had "a thirst for pre-eminence." "He would preside over his playmates as their master and they his hired servants." At 15, believing that much study had soured his temper, he determined to soften his austerity by cultivating the acquaintance of a certain young girl. But she put a sudden end to the scheme by marrying, much to Chatterton's expressed disgust (and apparently his unexpressed disappointment). The boy's amusements were few and simple. With his friends he strolled into the country discussing literary matters or reciting verses. In his middle teens he studied (for the most part independently) ancient literature, English heraldry, metaphysics, mathematics, astronomy, music, and surgery. He executed heraldic designs after receiving some lessons from an engraver.

2. Education. At the age of 5 Chatterton was put to school, but was soon returned to his mother by the master "as a confirmed dullard." When he was about 6½ his mother taught him the alphabet, and later, with the assistance of her daughter, she instructed him in reading, using an old black-letter Bible as a text. At 7¾ Chatterton entered Colston's Hospital School, a free school for poor boys where the three R's were taught, and he continued there until he was 14.

3. School standing and progress. A school teacher stated that Thomas was making rapid progress in arithmetic at the age of 10. The boy's roommate stated later that he, Chatterton, and another "carried all before" them at school.

4. Friends and associates. Chatterton's few school friends, with the exception of his roommate Carey, later an author, were solid,

unimaginative lads, who were unaware that their colleague had written verses while at school, and, in fact, generally believed him incapable of producing such work as was afterward proved to be his. Others, however, held him to be a very extraordinary genius; they believed him capable of the performance, but incapable of the deception. (See II 6.) The junior master, a young man deeply interested in history and poetry and something of a poet himself, was Chatterton's close friend.

5. Reading. As soon as he had learned to read, Chatterton read all day, "so assiduously that they feared for his health." At the age of 10 he spent the trifle allowed him for pocket money to hire books from the circulating library. At 10 and 11 he wrote a catalogue of the seventy books, chiefly of history and divinity, that he had read. According to his schoolmates he retired to read during the hours allotted for play. Before he was 15 he had read and carefully studied the works of Chaucer, Shakespeare, and Milton. During the succeeding years his reading continued unabated.

6. Production and achievement. Chatterton's first known verses, sixteen lines on *The Last Epiphany,* were published when their author was 10; in the same year was written "A Hymn for Christmas," consisting of seven stanzas of six lines each, but this was not published. At 11 or 12 he wrote the sarcastic lines *Sly Dick* (39 couplets), *The Churchwarden and the Apparition, a Fable* (30 lines, published), and *Apostate Will* (54 couplets). At 14⅔ Chatterton became the apprentice of a scrivener—a good position because the hours were short, affording much free time for independent study and writing. At 15 Chatterton wrote a number of love lyrics and other occasional verses for the use of his friend, and in the same year he began to fabricate the *Rowley Romances,* a mass of pseudo-ancient literature, invented with the help of some old manuscripts, Camden's *Britannia,* Baker's *Chronicles,* the *Charters of Bristol,* Chaucer's works, and some antique dictionaries and *Relics. The Romaunte of the Cnyghte* is probably the earliest of these romances, and here as later the author added to his "ancient" version a modern translation. The first Rowley manuscript, a prose chronicle, was printed when Chatterton was not yet 16. "Although the author had little knowledge of the language, literature, and manners of the period he attempted to portray, the production of the Rowley manuscripts started a controversy as to their authenticity which only recently died out. It is now universally admitted that Chatterton was the author." The young poet turned his work over to Catcott, a collector of old books, and Barrett, a pseudo-historian. He received very little in return for them. A tragedy, *Aella,* failed to find publication. At the age of 16⅓ Chatterton sent a "History of Painting by Rowley with explanatory notes and some verses by Abbot John" in manuscript to Horace Walpole, who was all interest until he discovered his correspondent's lowly station. Walpole then handed the work to antiquaries who pointed out the fabrications. Chatterton in his disappointment wrote an impetuous sonnet addressed to Walpole, which, however, he never dispatched. At 16½ Chatterton

published *Elinoure and Juga* in the *Town and Country Magazine.* Before his death at 17¾, Chatterton had written upward of 600 pages of verse and prose.

7. Evidences of precocity. The boy's sister records that "he was dull in learning, not knowing many letters at 4 years old, and he always objected to read in a small book." It is said that up to 6½ his mother regarded him "as little better than a fool." At his confirmation (at 10 or 12) he attracted attention by his "sensible and serious remarks." At 14⅔ Chatterton wrote a letter to a friend in America in which he incorporated "all the hard words in the English language." (See also II 1, 5, and 6.)

AI IQ 170 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Released from his apprenticeship at 17½, Chatterton traveled to London, where he received some encouragement from the publishers. He started on political writings but, finding no sale for them, reverted to poetry. Although his works were accepted, production was postponed and sums due were not paid. A series of disappointments followed and then, having been without food for two or three days, Thomas Chatterton was found dead in his room. It was generally believed that he had committed suicide.

AII IQ 170 (Rel. coeff. of data, .75)

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GIACOMO LEOPARDI (1798–1837)

An Italian Poet

AI IQ 170 AII IQ 175

I. *Family standing.* Leopardi was of "noble blood on both sides of his family." His father, Count Monaldi Leopardi, "was a man of some culture, a rigid Roman Catholic, limited in his range of intellect," whose naturally harsh and unsympathetic nature was apparently soured by financial difficulties. The whole thought of the mother, the Marchioness Adelaide of the noble house of Antici, was absorbed in parsimonious efforts to repair the fortunes of her husband. Not indeed a bad woman, she was rather in some ways a woman of superior character and of much strength of will, but she exhibited none of the understanding or affection for which her gifted and sensitive little son longed.

II. *Development to age* 17.

1. Interests. Leopardi's boyhood interest is classical erudition was intense. His brother recalled that, awakening very

late in the night, he used to see Giacomo "on his knees at the little table so as to be able to write till the last moment by the light which was going out." Giacomo was talkative, imaginative, bright, quick, and inventive. A clever analyst of characters and motives, he used to dramatize and satirize the conflicts of home life, preparing little comedies and tragedies, which he presented with the assistance of his brothers and sister. A favorite theme was that in which the tyrant (his father) was worsted by the hero (himself).

2. Education. His education up to the age of 9 was intrusted to two local priests, one of whom carried it on thereafter until the boy was 14. At the age of 10, Giacomo embarked upon a course of self-instruction and continued thenceforth without intermission, making his studies his sole occupation. Without a master, he learned Greek, French, Spanish, German, English, and Hebrew. His proficiency in the last-named enabled him to maintain discussions with certain learned Jews of Ancona, and his familiarity with Greek is reported as almost incredible: "he had attained a sort of critical divination in respect to all Greek writers . . . . infallibly confirmed by . . . . the most eminent commentators." He persevered in his philological studies until his eyesight failed seven years later.

3. School standing and progress. Although Leopardi never attended a school he was said, at 12, to be quite the equal of a Lyceum student.

4. Friends and associates. Perhaps because he could look for neither sympathy nor love from his parents, Giacomo was particularly attached to a younger brother and sister. The brother, a year his junior, was his "confidant in everything." Giacomo was evidently the leader of the little home group.

5. Reading. Young Leopardi had the use of a rich library collected by his father, a great lover of literature. In it the boy passed the chief portion of his days, keeping careful notes of his reading and remembering important points. He read the classics, biblical works, the *Alexandria of Egypt*, and histories of the saints. *Telemachus* and *Robinson Crusoe* he read surreptitiously with his brother. Leopardi's reading in childhood laid the foundation of his great store of knowledge.

Leopardi could never have accomplished so much had he not read continually and kept full written record of all his reading. His were not superficial performances, but the works of a real scholar assimilating, condensing, and reproducing his material transformed and unified. In parts, however, his early productions show only astounding, laborious study and patience. The critics are agreed, however, that as the work of a boy they are remarkable, and that the productions of even these early years are worthy representatives of Leopardi's critical ability.

6. Production and achievement. Before the age of 12 Giacomo had composed little essays (some of which are still preserved). These he recited at the end of the school year, thereby winning the applause of his friends and the admiration of his father. "Between his 12th and his 26th year (mainly between 13 and 20) he wrote

a marvellous number of expositions, annotations, glosses, commentaries of every description, on many classical authors, testifying to philological learning and genius seldom paralleled." The most important of these philological manuscripts, chiefly written in Latin, were a *Commentary on the Life of Plotinus by Porphyry* [written at 16]; *Essay on the Popular Errors of the Ancients* (which forms a volume in the Florence edition of his works) [written at 17]; *Fragments* gathered from the Holy Fathers of the Church; *Glosses* on Plato, Dionysius of Halicarnassus, Demetrius Phalereus, Theon the Sophist, etc; *Dissertations* on Moschus, the Batrachomyomachia, Philo Judaeus, the Reputation of Horace among the Ancients, etc., together with the *Fragments* on Celsus, Florus, Xenophon, etc. "And we are assured on competent testimony that these writings are not merely very clever essays of a youth; but are mature in conception, masterly in execution, and thorough in scholarship." He also partially translated parts of Hesiod, the *Odyssey,* Simonides, Moschus, Isocrates, Epictetus, etc. Erudite Germans accepted as genuine his forged Greek odes, as did good Italian scholars his pretended text of the fourteenth century. From his 13th year is preserved a little poem "Il Balaams" (three stanzas of six lines each) on the Bible story, followed by three stanzas in blank verse on the Punic wars, and a poem on "Cato in Africa" in irregular meter. This described the camp of Farsaglia in six-verse stanzas and Caesar's voyage in four-verse stanzas. His description of a tempest at night is like a song. Caesar's victory is described in a three-verse stanza, as is also Cato's death. A few verses are preserved from the following years, as well as records of other poems and of scientific treatises. An enormously learned history of astronomy begun at 13 was published when Leopardi was 15. Two translations from the Greek appeared when he was 16. The same year he read a prose sermon on the trial of Jesus to an assemblage of aristocrats. This was one of a number of religious writings. At the same age he wrote in blank verse a tale of the Flood. He produced exercises in logic and philosophy in rhetorical form that were very fanciful and youthful and yet none the less productions of genius.

He wrote further a little poem on the "Three Wise Men of the East," a tragedy of *Pompey,* and a tribute to St. Francis de Sales.

Leopardi translated "in his childish way" an elegy of Ovid. He wrote verses on the story of Samson, dissertations, logical, metaphysical, physical, and moral; and the usual themes of the philosophical school.

Leopardi's study of natural history appears in a prose work in twelve treatises. The prevailing ideas of the philosophers and the historians are joined together by the free imagination of the youthful genius. The book is full of detail; it rather resembles a summary than a history.

When Leopardi reached the age of 16 years and 2 months, his father noted in his diary that he had received the life of Plotinus translated by his son who had never taken any lessons in Greek. Cancellian reports that the two works on Plotinus were written

within six months. In less than a month the young scholar had written in addition *De Vita et scriptis Rhetorum quorundam.* He then went on to write a longer work on the lives of the Church Fathers of the second century with a commentary on their works.

7. Evidences of precocity. Cancellian said of Leopardi at 16: "We have reason to expect much from a young man who even now shows such extraordinary ability." The Swedish scholar Akerblad expressed the same opinion. Creuzer, who had spent a lifetime in the study of Plotinus, made use of young Leopardi's work in writing his own. Niebuhr called him at this time the "super-erudite," and "a conspicuous ornament of Italy." The great scholars Simmer and Thilo were full of praise. (See also 1, 5, and 6.)

AI IQ 170 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At the age of 17, Giacomo was compelled to spend a whole year without reading, so seriously had his eyes become affected by his intense use of them. He took to thinking, and thus it was that he became enamored of philosophy, to which, with its related literatures, he devoted the rest of his life. At 18 and 19 Leopardi published various translations and original articles in the *Spettatore,* a journal of Milan. Among these were the following: (1) "Wars of the Frogs and Mice," translation from the Greek, Milan, 1816 (reprinted nine times in different collections. (2) "Hymn to Neptune," a clever forgery, said by its author to be a translation from the Greek, newly discovered, with notes, and supplemented by two Anacreontic odes in Greek (also forgeries), newly discovered; Milan, 1817. (3) Second book of the *Æneid,* translated; Milan, 1817. (4) *Annotations on the Chronicle of Eusebius,* published in 1818 at Milan, by Angelo Mai and Giovanni Zohrab; Rome, 1823. (5) *Odes* on Italy, and on the monument of Dante in course of erection at Florence; Rome, 1818. The works of this period placed their author upon the height which he maintained ever afterward.

In addition to the periodical publications Leopardi prepared (at 17) an edition of Cestos with translations and annotations. He wrote during the same year his *Essay on the Popular Errors of the Ancients* in which he cited more than 400 authors. This work was called by Sainte-Beuve "the production of a mature mind." In his 19th year Leopardi began the remarkable correspondence with Giordani, a rare mirror of the poet's mind. Numerous odes and other poems appeared.

At the age of 24, Leopardi spent some time in Rome where he "won the esteem and excited the wonder of Bunsen and Niebuhr." The latter procured him the offer of rapid advancement if he would but enter the Church. This, however, Leopardi refused to do, preferring freedom rather than advancement. In spite of great physical suffering and profound mental depression, the extent of Leopardi's labors was continually prodigious.

AII IQ 175 (Rel. coeff. of data, .75)

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FRANÇOIS MARIE AROUET (VOLTAIRE) 1694–1778

A Famous French Writer

AI IQ 170 AII IQ 180

I. *Family standing.* The Arouet family was ancient and respectable. Among Voltaire's paternal ancestors were tanners, weavers, drapers, apothecaries, purveyors, notaries, owners of small estates. Voltaire's father was a competent notary who built up a good practice, attracted the patronage of several persons of importance, amassed considerable capital, and acquired the title of counselor to the king and notary to the châtelet. The mother belonged to the D'Aumard family of the old Poitou noblesse. Her father held a post of dignity in the parliament of his province.

II. *Development to age 17.*

1. Interests. Poetry was Voltaire's first passion and his last. Before he was 11 he wrote verses with extraordinary facility and marked enthusiasm. At school he walked and talked with the Fathers while the others were at their games; when told that he should play like his comrades, he said: "Everybody must jump after his own fashion." A writer's serious interests as well as keen wit and clever analysis of motives are displayed in letters of Voltaire penned at the age of 16. Even then he had determined that literature was to be his calling. His father, however, did not acquiesce in this decision, insisting that his son should follow the law.

2. Education. Instructed in a desultory way by the Abbé Chateauneuf, little Arouet (aged 3) learned to read from LaFontaine's *Fables.* At 10 he was sent to school where he took his place in the lowest class and began the study of Greek and Latin. The second year he read Æsop's *Fables.* After continuing his education at the same school until his 17th year, Arouet began the study of law and at the same time pursued geometry and metaphysics.

3. School standing and progress. The thin-faced little 10-year-old was keen-witted enough; he readily picked up Latin and the "nonsense" of the curriculum and showed a passionate voracity for information of any and every kind. His intelligence, indeed, was "like an arrow—an arrow which always went straight to the mark." Even during his school days he acquired so much literary skill that one of his teachers was humiliated by his keen literary

criticism. Unwilling to be overruled by a child, the teacher seized his pupil by the collar and shaking him cried out: "Wretch! You will one day be the standard-bearer of deism in France!" Voltaire became and remained one of the best students in his class. At 16 he won extraordinary honors and prize after prize was awarded to him. His poetic talents were considered so marvelous that he was deemed worthy of an introduction to the literary lion of the day, J. B. Rousseau.

4. Friends and associates. Voltaire's earliest friend and patron was the clever Abbé Chateauneuf. At school the boy was a favorite with his teachers, admired by all his companions and by some of them beloved. The Jesuit Fathers were, with one exception, the friends of their pupil, and Arouet's special tutor remained his life-long friend. As a reward for his fluent verses, the boy was allowed to visit the marvelous Ninon de Lenclos, then 80 years old, and she, captivated by the "wondrous boy poet," left him at her death a legacy for the purchase of books.

5. Reading. Certain passages in the classics thrilled the young poet; he loved Cicero, was early and passionately devoted to Horace and Virgil, and he worshiped Corneille.

6. Production and achievement. At the age of 12, encouraged by the success of earlier verses, Voltaire attempted a tragedy, "Amulius and Numitor," but this he later burned. Extant verses of this period show astounding ability. His first published work, 20 lines of verse, was a petition to the king on behalf of an invalid soldier. Turned with much ingenuity and elegance, it attracted the attention of Versailles and Paris. The practical father was alarmed at so much notoriety and anxiously sought to restrain his son's poetical enthusiasm. A translation of a Latin *Ode on St. Genevieve* (eleven 10-line stanzas), written when the poet was 15, was published about this time.

7. Evidences of precocity. Wilful little François began to learn at 3, or soon after, a certain ribald, deistical poem of J. B. Rousseau taught him by his patron, the witty abbé, who was greatly entertained by the child's active intellect. "I wrote verses from my cradle," says Voltaire, and in their early years the two Arouet brothers were pitted against each other in verse-writing. "The verses of the younger were so good as at first to please and afterward to alarm his father." In his early teens Voltaire attracted the attention of a tutor who would listen long and late to sharp questions on history and politics; "That boy wants to weigh the great questions of Europe in his little scales," was the tutor's comment. At 10 the boy discussed important questions of the day with Ninon de Lenclos, who saw in him on that memorable visit the germ of the great man that was to be. He was early noted for his clever repartee. At 11, or 12, the boy became the prodigy of the Collége Louis-le-Grand, and this position he maintained to the end of his course.

AI IQ 170 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 François arrived in Paris, a law student. He became acquainted with the Epicureans of the Temple and was soon playing the gallant, a singer of impromptu verse who was made much of by his fellows, caressed by the ladies, and a protégé of princes. He drank deeply of the gay life and as a consequence was sent by his father to rusticate at Caen, but here, too, all doors were open to him, and his life retained many of its former delights. He returned to Paris before the end of his 19th year, as wild as ever, and his father in despair arranged to have him shipped off as attaché of the French ambassador to the Netherlands. In The Hague he fell ardently in love with a Protestant maid and mingled his passion with efforts to convert her to his own faith. Arouet *père* recalled his son to Paris, forbade his affair with the Dutch girl, and disinherited him when he refused compliance. But the youth was soon forgiven, and the old Paris life was resumed. At 20, at a friend's invitation, young Arouet spent several months at the Chateau Saint-Ange in an atmosphere of gossip, *bon-mots,* and scandal. Nevertheless, his verses continued (he published from time to time), and he was soon working on his *Œdipe,* conceived the previous year. At 21 he had returned to Paris, and, reading *Œdipe* to the literary coterie, was hailed as a genius, surpassed only by Corneille and Racine. At the invitation of his friend he went again to Saint-Ange and, while there, had a hand in a satire on the Duke of Orleans. As a consequence he was exiled (aged 21½) but managed to appeal to the Regent by a poem (his seventh published work) and was so allowed to return to Paris. Again the satires appeared and this time François was sent to the Bastille. Here (from the age of 22½ to 23½) he composed large portions of the *Henriade,* committing them to memory because he had neither pen nor ink. His stay in prison was at length ended by the confession of the true author of the satire; but Arouet's experiences in prison resulted in the writing of the *Bastille* (his eighth published work). On the appearance of this poem the young author was again exiled for a while, but at 24 was allowed to return to Paris. *Œdipe* was published, and then performed on the stage for forty-five successive nights. It won universal praise and became at once a standard stage play (which it has remained to the present day). Arouet's success resulted in the gift of a huge gold medal from the king and a request that the play be presented in the palace. Voltaire, as he now called himself, making the most of his popularity, presented (aged 25) the tragedy *Artemire,* but this failed to win the applause accorded to his earlier drama.

AII IQ 180 (Rel. coeff. of data, .75)

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SAMUEL TAYLOR COLERIDGE (1772–1834)

An English Poet, Literary Critic, and Philosopher

AI IQ 175 AII IQ 165

I. *Family standing.* Coleridge's paternal grandfather was a woolen draper. He failed in business and was forced into bankruptcy. His son, the poet's father, was a country clergyman and schoolmaster of no ordinary kind, a classical scholar and an accomplished mathematician. He was the author of a number of published theological dissertations as well as some textbooks in Latin. The mother, whose family had inherited a small farm in the Exmoor country, was "an admirable economist." Comparatively uneducated, she achieved the highest praise as an excellent housekeeper, an admirable wife, and mother.

II. *Development to age 17.*

1. Interests. Because he was something of a misfit among boys of his own age, Coleridge took little pleasure in boyish sports, except swimming which he genuinely enjoyed. At an early age he acquired an indisposition to all bodily activity. He says of himself that he was "a playless day-dreamer." When, at the age of 8, he heard his father explain astronomical theories, he listened with "profound delight and admiration, but without wonder or incredulity." "He never regarded his senses in any way as the criteria of his belief." Although joyous in temperament, his effervescing enthusiasms were unusual for a boy of his age and not shared by his associates. His most pronounced interest was in reading and in this he found a refuge when the boys tormented him. A dramatic trend was developed through his reading, and he would often give skilful presentations of the characters of his book. (See also II 5.)

2. Education. Coleridge entered Reading School at 2 or 3 and remained in attendance there until, at 6, he was ready to become a pupil in the grammar school of which his father was rector. He continued for three years with his father, who had early resolved to make a parson of him. The father's death occurred when his boy was 9, but the latter continued thereafter for half a year in the old school under his father's successor. After a visit to an uncle in London and a short stay at Hertford School he entered Christ's Hospital School, which he was to attend for eight years (aged 10 to 18). Here his schoolmaster flogged instead of flattering him, but he gave him a sound basic training in literature on grounds of plain sense and universal logic. The boy's taste was moulded by a course of severe criticism. His style gained in excellence and he learned to appreciate the greater more than the less, preferring Demosthenes to Cicero, Homer to Virgil, and Virgil to Ovid.

3. School standing and progress. At the grammar school Coleridge (aged 6 or 7) soon outstripped all of his own age. Because he could read and spell and had an "unnaturally ripe" memory and understanding, he was "flattered and wondered at by all the old

women." At this age "sensibility, imagination, vanity, sloth, and feelings of deep and bitter contempt for all who traversed the orbit of his understanding were prominent and manifest." At 10 "having learned to read tolerably he was admitted to the higher school." From 10 to 14 his talents and superiority put him always at the head in the routine of study, although he was utterly without ambition and, as to emulation, it had no meaning for him. In spite of recognizedly high standing, "the difference between me and my form fellows, in our lessons and exercises, bore no proportion to the measureless difference between me and them in the wide, wild wilderness of useless, unarranged book knowledge and book thoughts." At 14 Coleridge wrote to his brother of rewards offered for superior scholarship; at 15 or 16 he became one of a small band of qualified students selected by the headmaster to be prepared in a course of special training for the university exhibitions of the school.

4. Friends and associates. Coleridge was his mother's darling. He was petted by both parents and hated by his brothers. His enthusiasms were not appreciated among his associates. The schoolboys drove him from play and tormented him cruelly. In turn he became fretful, timorous, and tell-tale, and vain of his scholastic attainments. He despised most of the boys near his own age. On one occasion, between the age of 7 and 9, he ran away from home after a quarrel with his brother. The effects of exposure during this escapade lasted for many a year. Lamb, a little more than two years Coleridge's junior, entered the same London school a few months before Coleridge's advent there and soon became his close friend. The younger lad characterized his schoolfellow so far from home as "the poor friendless boy," but the master called him "the sensitive fool." Coleridge's intimates were devoted to him.

5. Reading. Before he was 5, Coleridge read the *Arabian Nights,* after which he was haunted by spectres. At 6 he read *Belisarius, Robinson Crusoe,* and *Philip Quarles,* and, during an illness, was read Pope's *Homer* by his brother. Between 7 and 9 he read every book he could find. Between 10 and 14, a stranger, struck by his conversation, made him free of a circulating library in King Street, Cheapside. Here he read through the entire collection, catalogues, folios, and all, whether he understood them or not, running all risks in skulking out daily to get the two volumes to which he was entitled. At 15, having determined to become a physician, he read much in medical and surgical works. A little later, under the influence of Cato's essays on *Liberty* and *Necessity,* this "wild dream" gradually gave way to a rage for metaphysics. Voltaire's *Philosophical Dictionary* turned him infidel. But a sound flogging reconverted him. (See also II 2.)

6. Production and achievement. At 15 Coleridge wrote his first (extant) poem, "The Advent of Love," and in the same year he translated the Greek hymns of Synesius. At 16 he wrote *Time Real and Imaginary,* his first published poem. At about 15 he sought apprenticeship to a friendly cobbler, but soon after, following the

visit of his brother, he determined to follow the latter and become a doctor of medicine.

7. Evidences of precocity. Coleridge talked for the first time before he was 2 years old, saying, "Nasty Doctor Young!" while his hand was being dressed for a burn caused by pulling a hot coal out of the fire. When not yet 3 years old he watched his own inoculation "unaffrighted." At 3 he could read a chapter in the Bible. At 9 he reported to his mother instances of the parson's deficiencies in grammar. At 9½ he was taken by his uncle from coffee-house to coffee-house and called a "prodigy" in his own hearing. At this age he "talked and disputed as if he had been a man."

AI IQ 175 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* The impetus to poetical expression was given through a volume of Bowles' verse which fell into Coleridge's hands when he was 17. Following his father's wish that he prepare for the Church, Coleridge entered Jesus College, Cambridge, at 19. He was sent up as scholar (on a stipend) from Christ's Hospital. During his first year at the university he won a gold medal for a Sapphic ode on the slave trade. He was studious but capricious: he loved to indulge in lengthy conversations with his friends, or to regale them with long passages from the speeches of Burke and others; he wrote and read much; and was an ardent supporter of the French Revolution, Fox, and Republican sentiment. At 21, discouraged by debt, he left Cambridge and joined the King's Dragoons. A little later he again altered his intention, secured a discharge, and returned to the university. After a visit to Oxford and Southey, he evolved a scheme for a Utopian Society which was planned to be carried out in America, but this suffered the usual fate of Utopias. During this year and the next he collaborated with Southey in the drama *The Fall of Robespierre.* Shortly after (at 22) he left Cambridge without a degree. The *Sonnets on Eminent Characters* were published in the *Morning Chronicle* during the year. In the meantime Coleridge went to Bristol to live with Southey, but soon differences arose putting an end to the intimacy. At the age of 23, Coleridge married. In the following year he published the first edition of his poems and started a periodical, *The Watchman,* which, however, failed to pay expenses and was discontinued. Ill health and anxiety prompted the use of laudanum at this time. At 24 Coleridge decided on farming as a vocation with literature as recreation; in the following year the second edition of his poems was published and he began *The Ancient Mariner* and *Christabel.*

AII IQ 165 (Rel. coeff. of data, .75)

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ALBRECHT VON HALLER (1708–1777)

A Distinguished Swiss Physiologist, Anatomist, Botanist, and Poet

AI IQ 175 AII IQ 180

I. *Family standing.* Haller's father came of an old and respected family that had given fifteen members to the great and privy councils of the Republic of Bern. The father himself held a high state office in Bern's province of Baden and was well regarded for his learning and legal writings. He was a man of penetrating understanding, of remarkable humor, a Singularist in religion, and a good poet. Of Haller's mother it is recorded only that she was the daughter of Anton Engel, governor in Untersee. She died before Albrecht was 3.

II. *Development to age 17.*

1. Interests. Albrecht was a frail child who suffered from rickets. Because of this defect he could not exercise much and so he early became fond of writing, drawing, reading, and quiet games. He found especial pleasure in long and intensive studies. He was kind and friendly, and the indifference of those who should have given him affection hurt his sensitive nature. His relatives scoffed at his endless passion for reading and despised him for his love of poetry. Haller's father had destined him for the church but the boy early conceived the desire to become a physician. At Tübingen botany was his favorite study and he made extended botanical trips with his professor. During his first months at the university he associated enough with the less studious to be drawn into their troubles. A little later, as a conviction grew that here was too much drinking and too little enthusiasm for learning, he decided to go elsewhere.

2. Education. From his 4th to his 13th year, Albrecht lived with his step-mother on his father's beautiful peasant-estate. During this time he received instruction from an old pastor, Abraham Baillodz, a good pedagogue, although narrow and vain in his pedantry. On the death of his father, his guardian sent Albrecht to the Gymnasium at Bern, where he remained for a year. He then spent some time at Biel in the house of a friend, where his constant questioning about French philosophy brought only annoyed and reluctant answers. During a period of ill health young Haller shut himself in his room for months at a time and devoted himself to the writing of verses of every kind in many languages. At 15, the young pedant entered the University of Tübingen. In theology, medicine, philosophy, chemistry, anatomy, and botany, he had now for the most part professors of great ability and distinction. After a year he went

to Leyden, where the simplicity, studiousness, and seriousness of the Dutch students supplied the atmosphere he had been seeking. Here the botanical garden and the anatomical theater were admirable and the professors were exceptionally clever men. Two members of the faculty were world-famous: Boerhaave was the most distinguished physician of his age; Albinus, the most distinguished anatomist.

3. School standing and progress. Even in early childhood, Albrecht Haller outshone all his playmates in the development of his mental abilities. He passed at 8 without an error the tests for entrance to the public school. Although the teacher thought it well to repress too great an ambition, the child was beside himself if he were not always, through application and ability, the first in his group. Soon nothing appeared impossible to his unusual industry; his zeal for advancement was incessant and his patience unlimited. At 10 he knew the Greek Testament from cover to cover. It was typical of him that in a Gymnasium entrance examination he substituted for the required Latin exercise, a production in the far more difficult Greek.

4. Friends and associates. As a child, Haller was loving and lovable but he was never a favorite with other children. Because of his poor physique he could not join in their games, and besides, he was allowed less pocket money than the other boys. At Tübingen, Haller lived in the Cotta household and two of the Cotta brothers (theologians) were his intimate friends. Several of his early associates were physicians. Gmelin, afterward famous as a geologist, was a Tübingen associate.

5. Reading. Homer was this boy's romance at 12. Horace and Ovid were also thoroughly familiar and Virgil was looked upon with reverence as the inspirer of his own verse. At 13 Haller found literary models in Brockes and Lohenstein as well as in the classics.

6. Production and achievement. In his 10th year Haller felt for the first time the desire to make verses; a Latin satire against his too-severe teacher is said to have been his earliest work. The next year he began writing rhymed stanzas in German, taking some poem as a model, and seeking to exceed or at least equal it. At 11, when ill with smallpox, he wrote a French poem "full of fire and tenderness," and at 12 he worked out an arithmetic. When one night a fire broke out the young "poet" gathered up his verses and escaped, leaving behind all of his other possessions. He had at this time no idea of publishing his works, for he felt that a real author must be something quite rare and remarkable, which he was not. At 16 he expressed his emotions in "Morgengedanken," a noble poem in praise of the Creator. Haller's poetical efforts before the close of his 17th year included numerous translations from Ovid, Horace, and Virgil; many original verses in Latin, French, and his own German; lyrics; dramas; and an epic of 4,000 lines on a theme from Swiss history.

7. Evidences of precocity. The liveliness of young Haller's mind was early apparent. In his 4th year he began to preach to the servants, reciting the Bible stories from his little arm chair in the living-room. At 3 and 4 his greatest delight was to make books. In

some of these he kept careful financial accounts; in others, he wrote down all the new words he learned from day to day until he had completed a number of lexicons. In his 9th year he made great lexicons of all the Hebrew and Greek words in the Old and New Testament, with their variations, roots, and meanings; he made a Chaldean grammar; he prepared 2,000 biographies of famous people on the pattern of Bayle and Moreri, with which he was already familiar. In his 9th year he was known for his weighty pronouncements. Of these one is preserved to the effect that "it aroused in him more pity to see a hen die than to be present at the execution of a criminal because the death of a wicked man is deserved and necessary."

AI IQ 175 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Haller spent two years at Leyden where he studied intensively under Albinus and Boerhaave. The latter was his pupil's ideal teacher and his fine character deeply influenced the student. At the end of his 19th year Haller took the examinations for a Doctor's degree, and some months later returned to Bern to establish himself independently as a practicing physician. His agreeable personality, ability, and successful cures soon attracted a large clientele. The young physician recorded careful case histories, a new procedure in medical practice in his day, and constantly carried on experimental work. His method of counting the pulse and its use as a criterion is still followed. At 22, Haller was invited by the Nuremberg Medical Association to contribute to their *Journal.* His work on the muscles of the diaphragm, published when he was 25, was well received by the medical world. At his suggestion, the Bern authorities erected an anatomical theater and Haller held lectures and gave demonstrations there. He was appointed municipal physician, the next year city librarian, and at 27, professor at Göttingen. During this period, in addition to his medical activities, Haller traveled, wrote poetry, and studied botany. During his first months in Holland, he visited the important cities, and later he made a tour of North Germany with two friends. After leaving Leyden he visited England, where he met several distinguished physicians. In Paris he attended lectures by noted scientists. At Basel, with his friend Gessner, he became absorbed in calculus and geometry; inspired by the professors there he read more widely in English literature, and so established in his own mind the literary standards which made him one of the first poets of his age. He botanized with Professor Stähelin; he made his famous Alpine journey with Gessner, and later organized the botanical specimens he had collected. During the same year, he made four more extended botanical trips in the Alps, another at 23, and two more at 24. Meanwhile he took up classical literature again, reading through from Ennius to the Age of the Barbarians, and not one reference to medical science seems to have escaped his notice. Every year saw the production of a number of poems, usually in honor of some special occasion. *The Alps,* written when Haller was 20,

was the first representative of a new German poetry. With his *Gedanken über Vernunft, Aberglauben, und Unglauben,* he convinced the Basel group that "German poetry could be poetry." At 23 he published anonymously his first volume of poems, which was praised by such poets as Bodmer, Gottsched, and Köstner. Two years later a second edition appeared and was approved by the reading public both in Germany and Switzerland.

AII IQ 180 (Rel. coeff. of data, .82)

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FRIEDRICH SCHELLING (1775–1854)

A Celebrated German Philosopher

AI IQ 175 AII IQ 180

I. *Family standing.* Schelling's forefathers were pastors, well educated and of high local reputation. Schelling's father, a man of exceptional abilities as a scholar and a teacher of scholars, was a distinguished orientalist and a churchman who became a prelate. The mother was a woman of simple bourgeois tastes and prejudices.

II. *Development to age 17.*

1. Interests. Schelling's early interests appear to have been wholly scholastic and intellectual. At the university his only recreation was walking.

2. Education. After attending the local public school, Schelling passed at 8 to the private instruction of his father and certain students of the parental theological seminary, as there was no Latin school in the neighborhood. Under this superior tutelage he became grounded in the essentials of the ancient languages. At 10 he was sent to the public school at Nürtingen, of which his uncle was principal; returning at 11¾ he entered his father's seminary where he pursued learning for four years. He was carefully instructed by two noted scholars and definitely trained to be a scholar himself. Of his teachers, one praised, the other reserved favor, but both were excellent mentors. After the boy had been the youngest member of two classes, and had seen both graduate, the father succeeded, with some difficulty, in arranging for the entrance of his precocious son at the Tübingen theological school. Although young Schelling was three years under the usual age of admission to Tübingen, he pursued the usual course, winning the Master's degree at an age when other bright youths were only beginning the course. Friedrich was deeply influenced during his course by Schnurrer, a world-renowned scholar and a former pupil of the elder Schelling.

3. School standing and progress. At 10⅓ Schelling passed the entrance test of the Nürtingen school with extraordinary ease. It was on this occasion that the mother learned for the first time that her son was a gifted boy. At 10¾ Schelling passed his first examination for admission to the Seminary, and a year later the teacher informed the father that Friedrich was advanced far beyond his classmates and could learn nothing more in that school. The boy was two or three years too young to enter a regular theological preparatory school and so he was permitted to attend his father's classes. Here young Friedrich was associated with youths of 18 or 19 who, annoyed at first by the presence of a child, soon saw that this lad was their equal in knowledge and ability. The elder Schelling's colleague was in raptures over the boy's performance, vainly believing that he saw in him the future support of church orthodoxy. At 13 Schelling had acquired the scholar's method. At 15½ he had attained the crowning accomplishment of students of his day: he was able to write down dictated German directly in Latin hexameters. He could also abstract or paraphrase Greek, Hebrew, or Arabic. His first philosophical reading seemed to him so clear and comprehensible that he thought, perhaps a little arrogantly, that he must have missed the point; but when he came to Leibnitz he found there was still something to learn. At Tübingen Schelling was recognized as far superior to any in his class; as a disputant he was distinguished above all his fellows, frequently confounding his teachers; he was always ready to furnish his classmates with points for debate.

4. Friends and associates. In his earlier years Schelling's associates were his parents, his sister, his teachers, fellow students, and his father's pupils. At Tübingen he was in distinguished company; his intimate friends were five years older than himself. They included Hauber, a man of superior mathematical ability, Hölderlin, the poet, Renz, the foremost student in Hegel's class, and Hegel, then regarded as a most intelligent, clear-headed, and able fellow.

5. Reading. After a strictly supervised course of classical reading, Schelling at 12 or 13 had access for the first time to a library of fiction. The anxious concern of his father was aroused when for a time the hitherto model lad was quite carried away by the new discovery. There was however little need for anxiety: the boy's zeal soon waned and he returned to his classics and scholarly works. In his father's extensive library he gained, before he was 15½, a wide acquaintance with the Greek and Latin writers; he had also read much on modern philosophy, and had begun Plato. (See also II 6.)

6. Production and achievement. At 10 and 11 Schelling wrote innumerable compositions in Greek and Latin including metrical pieces in Latin. At 12 his essays included a discussion of the evidences of the divine origin of the Scriptures; verses on the historical fulfilment of Biblical prophecy; Latin and Greek compositions; Latin distichs and Sapphic strophes; a metrical translation after Lowth; metrical German versions of Plutarch and Diodorus;

Latin translations of Greek epigrams; and original Latin epigrams. At 13 or 14, during his vacations, Schelling wrote a youthful, but really scholarly, monograph on the history of the Cloister Bebenhausen. Part I gives a description of the cloister and its surroundings; Part II gives the history, with exact source references and some critical comment; an appendix contains German and Latin epitaphs and inscriptions which the little paleologist, in long hours on hands and knees, had deciphered in the dark arcades. Note books are preserved from Schelling's teens and they show not only "such sureness in the knowledge of Latin grammar as is seldom found at the end of the lower seminary, but in addition a distinct gift for Latin style." They contain a German translation of a considerable part of the Hebdomadar as well as a Greek rendering of certain portions; skilfully executed Latin verses, hexameters, and distichs; essays on themes drawn from theology, history, philosophy, ethnology, psychology, and ethics.

At 15, or perhaps even earlier, Schelling wrote two long Latin poems. The first (in 81 distichs), was addressed to England. It gives a description of that land of freedom, and characterizes a number of the men who made her great. The verses on the proud, indomitable spirit of the English are not unworthy of a poet. To this work was appended a long page of Greek hexameters on the same subject. The second Latin poem is a scholarly work on the great mother language. Another production of merit was the annotated Thucydides, completed by Schelling early in his 16th year. Latin comments on Pindar's odes, prepared about the same time, were the result of wide reading and clever interpretation. Among independent studies carried on at Tübingen in his middle teens was a collection of Platonic myths with appended translations of some of the works included.

7. Evidences of precocity. (See II 2, 3, 4, 5, and 6.)

AI IQ 175 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* At 17 Schelling presented and defended with brilliance his disputation for the Master's degree, the subject and material of which he had, contrary to the usual custom, chosen himself. His first published work was written the same year: *Myths, Historical Legends and Philosophemes of the Ancient World.* Schelling was already regarded by Hegel and others as the champion of enlightened theology and scholastic Rationalism. Gradually philosophical studies began to absorb his entire interest; he became a disciple of Kant, and recognized in Fichte a kindred spirit. At 19 his second essay, *On the Possibility of a Philosophical System,* was published by Fichte. This work placed its author in the front rank of living philosophical writers. His next publication was *Letters on Dogmatism and Criticism.* Schelling was granted the theological degree at 20, having, as before, selected and worked up independently the material for his thesis. The eminent Professor Storr gave high praise to the performance of the brilliant young candidate. During the year appeared *The Ego as the Principle of Philosophy,*

in which the teachings of Fichte are blended with those of Spinoza. Owing to the high pressure of work during his last year of study, Schelling's health began to fail; Hegel counseled care and rest. But instead of following this advice, Schelling obtained a post as tutor, and this he held for two years. During these years he published a number of philosophical papers. His tutorial duties took him to Jena and Weimar. At 23 he was appointed professor at the University of Jena, where he was closely associated with Fichte and Hegel. He met Goethe and Schiller, was attracted by the former but repelled by the latter. During the period of Schelling's professorship at Jena, the university reached the zenith of its philosophical fame. Schelling's personality, his eager, self-conscious, yet powerful genius made him a true Romantic type; his advent in Jena was greeted with enthusiasm by the Romanticists; at 25 he had become their acknowledged leader.

AII IQ 180 (Rel. coeff. of data, .82)

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CHAPTER XXII

CASES RATED AT AI IQ 180 TO 190

JEREMY BENTHAM (1748–1832)

An English Jurist and Utilitarian Philosopher

AI IQ 180 AII IQ 170

I. *Family standing.* Bentham's great-grandfather was a prosperous pawnbroker; the grandfather, a Jacobite lawyer, "neither better nor worse than the average rate of attorneys"; the father also a lawyer, but a Hanoverian. The latter had not the slightest comprehension of his son's delicacy and diffidence. He constantly urged upon Jeremy the necessity of "pushing," to get on in the world, and could not see that this was utterly incompatible with the boy's nature. Jeremy's mother belonged to a family of some consequence although her father, a younger son of a younger son, was a shopkeeper. Bentham's marriage to her was a shock to the ambitious purposes of his family. She was, nevertheless, a most amiable woman and her son always spoke of her with affectionate tenderness. There was a great-uncle, Woodward, who used to talk of books and booksellers to the boy, and the books he did not sell "served for young Bentham's intellectual pabulum."

II. *Development to age 17.*

1. Interests. Reading was Jeremy's chief interest. But he was also very fond of music and played Corelli's sonatas when very young. He had an exquisite sense of harmony. Early visits to the theater were a source of the greatest delight. Jeremy had no native taste for drawing, and the instruction of an incompetent master developed none. He had the keenest sense of the beauties of nature; he observed accurately, enjoyed walks into the country, and was passionately fond of flowers. He studied Miller's *Gardeners' Dictionary* until he got all the names by heart. He was much interested in chemistry and a little encouragement would probably have directed his mind principally or wholly to the physical sciences. Until after he was 16 Jeremy remained in stature almost a dwarf, and because of his puny size disliked sports; but he developed adroitness to take the place of muscular strength.

2. Education. Jeremy learned his alphabet before he could talk. When he was 3 his father bought a Latin grammar and other books to begin his classical education. The Greek alphabet he learned on his father's knee, using Lily's *Grammar* and the Greek Testament as the two principal instruments of instruction. Fragments of Greek and Latin have been preserved, written by Jeremy at 4 and 5. The

boy was taught the rudiments of writing and music by his father's clerk; at 6 he had a regular violin teacher; and at about the same time he began to learn French. At 7 he was entered in the upper second form at Westminster School, where, according to his own later account, the boys were taught "few useful and many useless things." At 10 he obtained the right of admission to Oxford, but he was so undersized and weak that ill usage was apprehended and so he did not go until his 13th year, when he was entered at Queen's College. He had at first a very poor tutor, a morose and repulsive person, who cared little whether his pupils did well or ill, and who was always more ready to reprove than to encourage. The university hypocrisy of his day disgusted Bentham, and he found most of the professors and tutors insipid. It is easy to understand why he studied mathematics quite without the assistance and even without the knowledge of his tutor. At 15, after pursuing the regular course of study and reading, Bentham took his B.A., a rare honor for one so young. Then for a short time he was a student in the Court of King's Bench, Westminster Hall, returning afterward to Oxford to attend Blackstone's lectures. A little later he visited France with his father.

3. School standing and progress. At Westminster Bentham obtained considerable reputation for Latin and Greek verses, and even in his 11th year he wrote letters in both languages to Dr. Bentham, sub-dean of Christ Church. It was said that he wrote with greater facility in French than in English, for, having a limited acquaintance with the language, he "wrote boldly on, while in English he was stopping to weigh the value of words, and soon got embarrassed." He was never punished at school, yet he was always apprehensive of punishment and made himself memorize "dull and stupid prose" in order to avoid it. In spite of his unusual talents, Bentham was from his earliest childhood sensitive and retiring. He nursed a feeling of his own inferiority, hated almost all social pleasures, and was for the most part solitary in his play as in his work. His father's attempts to bring him out simply accentuated natural timidity in a physically underdeveloped and mentally overstimulated boy.

4. Friends and associates. In early childhood Jeremy had little opportunity to associate with children of his own age, and consequently his time was too much occupied with gloomy thoughts instilled by some of his reading. Other children were treated as dunces in his presence and he thus learned scorn and contempt for less acute minds, while his natural diffidence gave him no esteem of his own abilities. At college there was scarcely a companion in whose society he could discover any pleasure; he thought all his contemporaries stupid. He failed to fulfil his father's wish that he should make his way among the great at college; he did not approve of "the art of rising in the world" that he had observed. At Westminster, Bentham's interest was excited by a lad who used to tell stories of his own invention, in which the heroes and heroines were models of kindness, exhibiting the quality which he afterward called

"effective benevolence." It was perhaps in hearing these tales that he first became consciously enamored of that virtue.

5. Reading. From the beginning, Jeremy was passionately fond of reading. When he was not more than 6 his literary appetite was so great that he never found enough reading matter to satisfy him and was often "starved for want of books." His parents allowed him no amusing works, so that he welcomed with joy the French fairy tales his teacher brought. When only 3 he read with satisfied absorption Rapin's *History of England.* At 6 he took great delight in reading *Telemachus,* and, as always when reading a story, identified himself with the hero. To this book he later traced the first dawning in his mind of the principles of utility. He experienced great disappointment that the form of government proposed by Fénelon, which bordered on "the greatest happiness principle," was not accepted. At this early age he read Voltaire's *Life of Charles XII* and his *General History,* but the latter was beyond his boyish comprehension. His reading up to 12 included Burnet's *Theory of the Earth;* Cave's *Lives of the Apostles;* Stone's *Chronicle,* which contained stories that fascinated him while they filled him with horror; Lockman's *History of England* and *History of Rome* with pictures of the saints being martyred; Phaedrus' *Fables,* which, however, had no charm for him; Bishop Ken's sacred poems; Johnson's *Didsley's Preceptor,* which had a melancholy effect on him, for in it he saw himself destined to be burned alive; Richardson's *Clarissa,* over which he wept for hours; *Gil Blas,* in which he took an intense interest; *Gulliver's Travels,* which he admired and would have vouched all true; *Robinson Crusoe; Pilgrim's Progress,* which frightened him so that he could not read it through; *Timothy Peascod's History;* Camden's *Britannia;* Molière's *Days,* the allegorical parts of which he did not like, because of his insistence on fact; *Theron and Aspasia,* which he liked; *Paradise Lost,* which frightened him, and *Paradise Regained,* which he found very dull; Thomson's *Seasons,* in which he took no pleasure; Gay's *Fables,* which he found uninteresting because not true; Locke *On the Understanding;* Clarendon's *History of the Rebellion;* Burnet's *History of His Own Times;* all of Richardson's novels; Mandeville's *Fable of the Bees;* Clarke on the Trinity; Tindal's *Christianity as Old as the Creation; Atlantis;* and a curious *History of Japan.* The autobiography of Teresa Philips made an unusually strong impression on him at 11, and as a result he "vowed war on the Daemon of Chicane."

6. Production and achievement. At 10 Jeremy had made such progress in Latin and Greek that he was able to write letters to his schoolmaster in both. From this age he cultivated verse writing in the ancient and modern languages. At 13 he wrote a Latin ode on the death of George II and the advent of George III, which "made some noise" and of which Dr. Johnson said, "It is a very pretty performance of a young man." At Westminster School, Bentham obtained considerable reputation for Latin and Greek verses, which he often prepared for other boys of the school although they were his tormentors. At the same age he wrote a humorous verse in

English—rendering it also in Latin—which was preserved by his father. A declamation by Bentham was said to have been surpassed in excellence by only one other in the memory of that college generation. On several occasions the boy distinguished himself in debate; his antagonists required the aid of the masters in the preparation of their arguments while Jeremy worked quite independently. The elder Bentham, who wanted to show off his clever son, tried constantly to bring Jeremy into prominence. But the youth absolutely refused to respond to this wish and the father was left to complain of his son's "weakness and imprudence in keeping wrapt up in a napkin the talents which it had pleased God to confer on him."

7. Evidences of precocity. Jeremy's earliest recollection was of the pain of sympathy, experienced before he was 2. As this experience was thought typical of young Jeremy, it has been recounted at length. At his grandfather's house there had been some feasting and the child was filled to satiety by his nurse. Then he ate something his grandfather brought him and when his mother came "with her natural claim upon his affections, it was out of his power to accept what she offered. He then burst into tears, seeing the chagrin and disappointment which it cost her." Jeremy's father was accustomed to brag of his boy's early feats, as for instance of his recognition of the letters before he was able to speak. Before he was 3¼ Jeremy took a walk with his parents and some friends, and, finding that the conversation was about matters of indifference to him, he escaped and ran home. Ringing the bell, he gave orders to the footman to put the reading desk on the table and place a large folio, Rapin's *History of England,* upon the desk, and to provide candles without delay. His parents came home to find him absorbed in his reading. The account of this was repeated to him many times but he himself remembered vividly the satisfaction with which he read then and earlier this folio historian. When a very little child (at 2 perhaps) he noticed that the water in the basin had been converted into a cake of ice. He thought he might indulge a fancy of seeing what would happen if he threw the ice out of the window. He was filled with joy when he saw it shattered, until the thought came that he might be blamed; then for a long time he was tormented by fear. Jeremy suffered many times from his almost morbid sensibility. While at school his parents allowed him no pocket money, so, when he kept and spent five guineas that had been given him by a generous friend, he was continually haunted with dread of discovery and punishment. From early childhood he was afraid of ghosts, perhaps because his great-grandmother "was distinguished for having seen one." When 6 years old, he was taken to visit one of the king's valets. "The conversation was about nothing and wearied the poor boy," so he escaped, found a copy of Pope's *Homer* and read it with extreme satisfaction and avidity while the others were gossiping. When Jeremy was 6 his father and some friends who were discussing "genius" asked the boy to tell them his notions of the matter. He said nothing, at the time, but the subject long occupied his thought

and many years later (aged 20) he evolved an explanation that satisfied him. Bentham was always given to doubts and questioning. He could never accept any but logical explanations. Because of his constitutional antipathy to anything that was not fact the statement made in later life probably extended to the period of childhood and was true of this rigidly critical and painfully serious lad. "I never told a lie. I never, in my remembrance, did what I knew to be a dishonest thing."

AI IQ 180 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* Returned to Oxford, Bentham took his M.A. degree there at 18. The following year he left the university and returned to London, where he continued his studies independently. Upon reading Helvetius' *De l'Esprit,* the suggestion came to Bentham (at 20) that "genius" meant production or creative invention. Immediately he asked himself, "Have I a 'genius' for anything? What can I produce?" In answer to this question he decided that there was in him "a genius for legislation and that legislation of all earthly pursuits was the most important." At 21 he "was beginning to get gleams of practical philosophy; Montesquieu, Barrington, Beccaria, and most of all Helvetius set him on the principle of utility." At 22 he began to have "a sort of reputation" and was spoken of as a "philosopher." The next year two letters of his appeared in the *Gazetteer*—his first compositions to appear in print. They are in defense of Lord Mansfield, who had been attacked, and they show young Bentham's inherent love of fairness. He found composition inconceivably difficult, but by hard labor to some extent subjugated his difficulties. At 24 he was called to the bar, but his inclinations did not lie in that direction and he discarded the idea of practicing as a barrister. Devoting himself to the study of legislation, he became the strenuous advocate of reform, constitutional, legal, social, and economic. The notes of this period contain the germs of the opinions later elaborated in his mature works.

AII IQ 170 (Rel. coeff. of data, .82)

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THOMAS BABINGTON MACAULAY (1800–1859)

An English Historian, Essayist, Poet, and Statesman

AI IQ 180 AII IQ 165

I. *Family standing.* Macaulay's father's family included ministers, writers, and a colonial general. The father, an F.R.S., and eminent as a philanthropist, was successively bookkeeper, governor of a colony of liberated slaves, and secretary of a British colonial company. By much reading he had more than filled in the gaps of a

defective education. The mother was the daughter of a Quaker bookseller.

II. *Development to age 17.*

1. Interests. At 3, Macaulay did not care for toys but was fond of taking his walk and telling interminable stories from his reading or from his imagination. At 4 or 5 his imagination located the Alps and Sinai on Clapham Common and enacted the scenes of history at his doorstep. At 8, although precociously forward in his tastes and interests, he was, according to his mother's contemporary report, "as playful as a kitten." From that time on his interests were almost exclusively intellectual. (See II 5, 6, 7.)

2. Education. (See II 7.) "Still the merest child," he was sent, reluctantly on his part, to his first school. From 12 to 13 he attended a private school near Cambridge, whose pupils (limited to a dozen at a time) were to receive more than their share of university honors and marks of professional distinction. The private school course included the usual classics, English composition, and mathematics. From 13 or 14 to 18 Macaulay attended the Asperden Hall preparatory school. His parents took pains never to appear to regard anything remarkable that he did as more than a schoolboy's amusement.

3. School standing and progress. It was recorded by his mother, just before Thomas turned 8, that he got on wonderfully in all branches of his education. At 12 we have it from his own report in a letter that he was classed with Wilberforce in the *Odyssey*, "whom all the boys allow to be very clever, very droll and very impudent." He reports further that in sermon writing he got off "with credit"; mathematics "suits his taste"; nothing but Greek "intimidates" him.

4. Friends and associates. Macaulay's early associates were relatives and schoolmates. At 12½ he began a series of visits to Dean Milner, president of Queens' College, Cambridge, "which were to mean much." After one of these occasions Milner wrote to the boy's father: "Your lad is a fine fellow. He shall stand before kings." Fellow pupils at Asperden regarded Thomas with pride and admiration tempered, however, by compassion for his utter inability to play at any sort of game.

5. Reading. At 6 Macaulay began to acquire a library of his own; the first volumes were the gifts of his sister. According to his mother's record, the extent of his reading and of the knowledge he had derived from it before he reached his 8th birthday, were truly astonishing for a boy of his age. Scott's *Lay of the Last Minstrel* he learned almost entirely by heart merely from his delight in reading it. He had most of the Epics in his library before he was 8. At 12½ he reports reading to himself Plutarch's *Lives*, Milner's *Ecclesiastical History*, and Fénelon's *Dialogues of the Dead*. His letters early began to smack of the library as he roamed over the whole expanse of literature. One fortnight's reading included the *Decameron, Gil Blas, Thalaba, The Curse of Kehama*, the *History of James I*, Mrs. Montague's *Essay on Shakespeare*, and a great deal of Gibbon.

6. Production and achievement. Before the age of 7, Thomas wrote a compendium of universal history, which his mother describes as "a tolerably connected view of the leading events from the Creation to the present time, filling about a quire of paper." Before he was 8 he wrote a paper containing a very clear idea of the doctrines of Christianity with some arguments for its adoption, for Henry Daby to translate into Malabar in order that it might serve to convert the natives of Travancore to Christianity. A little later he determined on writing a poem in six cantos which he called the "Battle of Cheviot." The work was, however, carried out only in part for after he had finished about three cantos, of about 120 lines each, which he accomplished in a few days, he became tired of it and gave up the project. He had at this time already composed a great number of hymns. At 7 or 8 he wrote a heroic poem, "Olans the Great, or the Conquest of Mona," after the manner of Virgil, introducing in prophetic song the future fortunes of his own family. Somewhat later he wrote a vast pile of blank verse entitled "Fingal, a Poem in XII Books." At 9 he greeted his uncle, who was returning from India, with a copy of verses. At 12 he composed "A Pindaric Ode" to celebrate Napoleon's flight from Russia. Childish squibs and parodies were constantly tossed off. All of his early productions were the fruit of some enthusiastic leisure moment, and yet all are "not only perfectly correct in spelling and grammar, but display the same lucidity of meaning and scrupulous accuracy in punctuation which characterize his mature works." Letters from this period show careful reflection and genuine originality. At 13 Macaulay indexed the thirteenth volume of the *Christian Observer*, of which his father was the editor. His first appearance in print occurred about this time: an anonymous letter in defense of works of fiction was published by his father in the *Christian Observer*. From the same year comes a poem addressed to his tutor requesting a holiday in honor of the Allies' entry into Paris. From 14 to 18 the muse was in abeyance and during these years Macaulay composed little beyond perfunctory school exercises.

7. Evidences of precocity. Macaulay's earliest recorded remark was the query, when he was perhaps not yet 2 years old, whether the smoke from a tall chimney were hell. Even in his infancy his mother recognized his precocious powers, but far from rejoicing, she was distressed by them for she thought her boy was thus marked for an early death. At 3 young Thomas read incessantly, and his memory retained without effort the exact phraseology of the book. At 4 he carried away a mental catalog of the Oxford collection after one visit to it. When a servant had spilt some hot coffee over his legs he replied to a solicitous inquiry, "Thank you, madam, the agony is abated." At 4 or 5 he was declared to be the simplest and most natural of children; but when the maid threw away the oyster shells which served as a fence for his garden plot he said, "Cursed be Sally: for it is written: Cursed is he that removeth his neighbor's land mark." Perhaps a little later he said to his mother, who had explained that he must learn to study without refreshment, "Yes,

mama, industry must be my bread and attention my butter." His mother wrote of the marks of genius which he continually showed at the age of 8. His extraordinary memory was often noted. Otherwise he was remembered as a "good-tempered boy, always occupied, without assumption."

AI IQ 180 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* At 18 Macaulay entered Trinity College, Cambridge, where he remained for six years. Here his companions included the two Coleridges and Charles Austin. While at college he was described as generous but vindictive. He had no athletic accomplishments, and at a time when out-of-door pursuits were regarded as the leading object of existence, he viewed his deficiencies with indifference. Mathematics and scientific subjects were distasteful to him, but he won the chancellor's medal for English verse in 1819 and again in 1821 (aged 18 and 20). In the latter year he also won the Craven scholarship. At 21 he was a tutor, at 24 he was elected fellow, probably because in spite of his neglect of scientific subjects, he "stood first of the candidates." At 22 and 23 Macaulay wrote much for *Knight's Quarterly,* a London magazine, and in the latter year delivered a speech for the Anti-Slavery Society which the *Edinburgh* characterized as "a display of eloquence signal for rare and matured excellence." At 24 he became an M.A. and the next month the *Edinburgh* published the essay on Milton which established his literary fame. At 25 Macaulay was called to the Bar but he never took to the law seriously and after a year or so gave it up altogether.

AII IQ 165 (Rel. coeff. of data, .75)

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BLAISE PASCAL (1623–1662)

A Celebrated French Geometrician, Philosopher, and Writer

AI IQ 180 AII IQ 180

I. *Family standing.* Pascal came from a noble family, whose members had held important offices from the time of Louis XI. His father was first president of the court of aides. Moving to Paris, he became one of the most active promoters of science, and there won the friendship of Descartes, Gassendi, Roberval, Mersenne, Carcavi, Pailleur, and other philosophers. These men used to meet at each other's houses for discussion, and their little informal but active association became the nucleus of the celebrated Academy of Sciences, established in 1666.

Pascal's mother died when her son was 3 years old. The boy's sister, a woman of superior mind and gifted in writing became a

protégée of Corneille. After her conversion to Jansenism she took the veil at Port-Royal.

II. *Development to age 17.*

1. Interests. Pascal early showed much interest in his surroundings and "wanted to know a reason for everything." When the reason was not known or when his father could not tell him or told him theories which although generally accepted were not actually proved, he was not at all contented, for "he had an unusually keen eye for discerning falsity. "To know the truth was the single aim of his mind." Even at a very early age he took great pleasure in conversations upon the subject of natural science.

His genius for geometry made its appearance before he was 12 years old and in an extraordinary manner. His father wished him to learn languages before undertaking mathematics and in consequence put away all the books on the subject and refrained from mentioning it in his son's presence. "This precaution did not prevent the child's curiosity from being aroused, however, and he begged his father to teach him mathematics. He refused but offered it to him as a reward, promising to teach him mathematics if he would learn Latin and Greek. Blaise seeing this resistance asked what the science was and of what it treated. His father told him that in general it was the means of making accurate figures and finding the relation they bear to each other. At the same time he forbade his son to think or speak of it again." Pascal, however, began to dream over the subject and knowing only that it concerned the making of infallibly accurate figures he used to mark with charcoal on the walls of his playroom, seeking a means of making a circle perfectly round and a triangle whose sides and angles were all equal. He discovered these things for himself and then began to seek the relationship which existed between them. He did not know any mathematical terms and so made up his own, calling circles *rounds,* lines *bars,* etc. Using these names he made axioms and finally developed perfect demonstrations, and as he went from one thing to another he pushed his researches until he had come to the thirty-second proposition of the first book of Euclid ("the sum of the angles of a triangle is equal to two right angles"). One day the father came in unexpectedly and asked his son what he was doing. The child explained, showed him some demonstrations he had made and finally recited his definitions and axioms. The father left the room, without saying a word, and unbosomed himself in tears of joy to a friend who lived close by.

2. Education. When Blaise was 3, his father began to devote all of his time to the education of his children. The boy never attended school and had no other teacher than his parent. When young Pascal was 8, the family moved to Paris and the father began a systematic course of training, the rigor and originality of which can be likened only to the discipline of John Stuart Mill. Before the boy was 12, he had been taught everything his father considered him capable of learning, including the principles of grammar and natural science. His father planned to begin his instruction in Latin, Greek, and

mathematics at the age of 12. After beginning Latin and Greek, Blaise studied logic, physics, and philosophy also, delighting the elder Pascal by the wonderful progress he made in all these studies.

3. School standing and progress. After his precocious demonstration of power in geometry his father gave him a copy of Euclid, which he could at once follow and explain merely by looking at the diagrams. Although he had begun the study of Latin only to please his father, his progress in this as well as in other subjects was such that his teacher was delighted. At an early age (between 12 and 16) Pascal was invited to weekly conferences in Paris "where all the clever people assembled" to bring their work or to examine that of others. Here he soon "held the first rank as much for his inquiries as for his production, though he was one of the members who most often brought in new ideas." His opinions were given as much weight as any and his advice was always listened to because he had so keen a mind that he discovered falsities which were hidden from others.

4. Friends and associates. No associates are specifically mentioned; but in addition to his talented father and clever sister we may assume that he came in contact with the group of men of science who were his father's friends.

5. Reading. (No specific record.)

6. Production and achievement. When he was 11, Pascal noticed that a knife struck against a plate gave a loud noise which stopped if the hand were held against the plate. This led to a series of experiments on sound and to the production of a treatise "which was found to be very logical and well thought out."

7. Evidences of precocity. According to his elder sister, Pascal, "as soon as he was old enough to take part in conversation, showed signs of an unusual intelligence by the clever remarks he made and particularly by the questions he asked regarding the nature of things —questions which amazed everyone. As he grew, his ability continued to develop so that he was always much advanced for his age."

"From his childhood he would accept nothing except what appeared logical to him and when others were unable to give him good reasons for things, he devised them for himself. When he once started on anything he would never give it up until he had found a satisfactory explanation." At 16, he was still devoting his spare time to mathematics, while his principal study was Latin. He made such rapid progress in his favorite study that he wrote during the year a small work on conic sections, which was sent to Descartes. The latter, Sainte-Beuve remarks, "was ungenerous enough to exhibit symptoms of jealousy at the rising genius of Pascal, regarding the youth of 16 years as a possible rival." Pascal's production of a treatise (at 11) and his geometrical deductions should also be noted (see II 6 and 1).

AI IQ 180 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Pascal continued to study Latin, Greek, logic, physics, and philosophy, and in all these subjects he

pleased his father by the progress made. Unhappily his intense application to study injured his health, so that to his death he never spent a day without pain. At 19 he devised a calculating machine, and spent several valuable years trying to overcome the mechanical difficulties of its construction. Noted mathematicians of France, England, and Italy later attempted to perfect Pascal's production, but without success.

At the age of 23 young Pascal, with the other members of his family, was converted to the Jansenist faith. But he did not at once give up his scientific work and during the next two years he carried out a series of experiments on atmospheric pressure reaching the same conclusions as Torricelli, with whose work he was at that time unacquainted. He was subjected to criticism by the Jesuits, but had little difficulty in confuting his opponents. At 25 Pascal was stricken by severe illness and was forced to give up his mathematical and scientific work (which indeed had been forbidden since his conversion). However, science still retained a fascination for him and he persuaded his brother-in-law to observe the height of the mercury column at the top of the Puy de Dome; the result of this experiment exploded for ever the old idea that nature abhors a vacuum. "At the age of 26," says Rogers, "[Pascal] had composed the greater part of his mathematical works, and made those brilliant experiments in hydrostatics and pneumatics which have associated his name with those of Torricelli and Boyle, and ranged him among the first philosophers of his age."

AII IQ 180 (Rel. coeff. of data, .75)

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JOHANN WOLFGANG GOETHE (1749–1832)

One of the Greatest Poets of Any Age or Country

AI IQ 185 AII IQ 200

I. *Family standing.* Goethe's paternal ancestors were craftsmen of central Germany. The grandfather was a North German tailor, later an innkeeper; the father was a university man, a Doctor of Jurisprudence, with the title of Imperial Councillor, who, although a great pedant, was a man of wide and varied interests. The mother's ancestors were jurists from southern Germany, her father being the chief magistrate of the free city of Frankfort. The mother herself possessed an unusual amount of practical common sense and many happy gifts of mind and heart.

II. *Development to age 17.*

1. Interests. Every event in the Goethe household was a rite or ceremony in which each member had a part; city or other local festivals and feasts were regularly attended and made special days of celebration. Church observances were strictly followed. In their earliest childhood, the brother and sister were introduced by their father to every point of historical or social interest in the town; and the observation of architecture, customs, and people was cultivated. When Goethe was 4½ a puppet theater, presented by his grandmother, stimulated his dramatic sense, and at 6½ he began to arrange and conduct plays on this miniature stage. Before he was 8 he and some of his companions developed a passion for writing poetry. Young Goethe thought his works superior to the others; but when he found that his fellow "authors" had the same impression of their verses, he became discouraged and gave up writing for a time, only, however, to resume activity later, after praise had heartened him to try again. Intellectual or political discussions quickened the lad's thought, and the tales of his father's travels aroused in him the desire for wider horizons. In this stimulating intellectual atmosphere he enjoyed the balancing advantage of a first hand knowledge of the arts and crafts as practiced by his townsmen. At local fairs young Goethe was thrilled by the view of strange wares from many a far country; on his explorations of the city, history became a living tale. At the age of 9 he built an altar and developed a mystical religion of his own in the hope of approaching God directly and thus worshiping him without priestly intervention. Between 9½ and 12, he became deeply interested in French. He studied the language with the French commandant, quartered in his father's house; he read dramatic theory and criticism; and he visited the French theater regularly on a pass presented by his grandfather, the mayor. In connection with his attendance at the play he learned, by visits behind the scenes, something of the contrast between the actors' lives and their professional attitudes.

At 14½, during the celebration of the imperial coronation in Frankfort, Goethe became enthusiastically interested in national history. While the glamor of pageantry fell upon the old city, transforming its drab bourgeous background to a truly romantic setting, young Goethe became enamoured of a maiden of humble station for whom he poured out all his heart until he learned that in her eyes he was only a child.

Dispatched to the university, Goethe (at 16) was, as always, full of literary and social interests. He read widely, attended the theater, and discoursed with his friends. He also devoted considerable time to the writing of verses in German, French, English, and Italian, attempting in his productions something more than the pseudo-poetry of the day.

2. Education. From the age of 3 until he was 6, Goethe attended a day nursery or kindergarten, and here, according to tradition, he learned to read. His father had already begun to tell the little lad and his sister the history of the town. An ABC book was purchased

for young Goethe (aged 4½) and a year later a catechism with Biblical quotations was presented to him. At this latter age, he attended a public school with his sister for several months. About the same time, under their father's direction, the two children arranged their parent's many engravings, and were introduced also to his admirable collections of maps, natural history specimens, glass, ivory, bronzes and old weapons, etchings and modern paintings. From his 7th year to his 17th, Goethe and his sister were trained by private tutors under a liberal plan of instruction, a plan devised to develop wide interests and cultivated tastes. Among the subjects taught were Latin, Greek, Hebrew, French, English, Italian, history, geography, religion, natural science, mathematics, composition, rhetoric, drawing, music, dancing, fencing, and riding. At least ten teachers participated in the instruction and these ten represented the points of view of various religious creeds as well as the culture of France, of Italy, and of various regions of Germany. Goethe's training in Latin began when he was 7 and within a few months he was writing free Latin compositions and learning military and legal phrases in the language. The corrections in his exercise books concern errors in orthography and the like rather than errors in language usage. One of his tutors, who was also a public school teacher, arranged prize literary competitions in which Goethe competed successfully with boys in the regular school. A legal friend instructed the boy in international law, while other associates of his father and grandfather took an interest in his education along the lines in which they had specialized. When Goethe was 9⅓, the French were quartered in Frankfort. The French commandant of the city was quartered in the Goethe house where he attracted an interesting group of people, especially artists, from whom Goethe learned something of their art. The prescribed preconfirmation instruction, which followed in regular course, was thoroughly distasteful to the 12-year-old boy. More satisfying to him were a variety of studies carried on at this time including mathematics, English, drawing, piano playing, and at length, after much importunity, Hebrew also. At 14 his reading included law and Latin. From 14 to 17 his scientific and pre-legal education progressed; Latin had by this time been thoroughly mastered.

At 17 Goethe had completed a broad and liberal course of training: he was familiar with the poetry of the leading nations; his reading of German, French, Latin, and Hebrew literature had been extensive; he was conversant with the language and history of the principal countries of Europe and he knew the political and legal history of Germany in minute detail; he had made progress in the study of theology and jurisprudence and the natural sciences; he knew something of drawing and music; he played the piano and the flute; and the artist Seekatz considered him a promising art student. At 16 he entered the University of Leipzig as a student of law and literature, for the elder Goethe intended that the brilliant career as a jurist which he had failed to achieve for himself should be realized by his son; but young Goethe wished to be a poet.

3. School standing and progress. "By means of a ready apprehension, practice, and a good memory" Goethe soon outgrew the instructions his father and his other teachers were able to give without ever requiring or receiving elementary drill in anything. Grammar which seemed to him a matter of arbitrary rules and exceptions, he despised, and he learned it only with some difficulty; Latin and geography, which he learned in verse, he thoroughly enjoyed and hence acquired readily enough. In rhetoric, composition, and the like he always excelled. Grammatical exercises, written when little Goethe was 7½ and 8 show thorough and painstaking study and the ability to express the experiences and impressions of every-day life in natural and facile Latin form. When his penmanship was rated with that of other children in the town it stood, on an average, 9th in a group of 30. At 8½, Goethe began to translate exercises into Latin in imitation of the historian Justinian similar to those designed by his tutor, who was also assistant school rector, for the senior class in the Gymnasium. Thus in his 9th year the lad was competing with boys of 16 to 22 years. At 8 Goethe learned so readily that he was able to pick up Italian from overhearing his sister and her tutor, while he himself was studying his Latin lesson. His rapid progress in French reconciled his protesting father to his attendance at the theater when the French classics were presented. A serious boy, and even at the age of 10 always the most industrious of them all, he was annoyed by the trifling of his playmates.

4. Friends and associates. In consequence of being made much of by his father's friends, Goethe became self-conscious and somewhat vain; but even his playmates admitted his actual superiority: "We were all his lackeys," later wrote one boy two years his senior. Goethe's intellectual endowment, his skill in narrating thrilling tales, the distinction of his bearing and manner made him a leader among his fellows. At the university, many of Goethe's associates were men of established reputation and ability, ten or more years his senior. Two girls had in turn won Goethe's passionate devotion before he was 17; the first when he was 14, the second when he was 16.

5. Reading. When barely 6 years old Goethe began to examine and read the illustrated *Orbis pictus*, Merian's illustrated Bible (then and later a favorite), Gottfried's illustrated chronicles of universal history and Heidegger's *Acerra philologica*. A little later he was reading *Robinson Crusoe*, *Die Insel Felsenburg*, and similar tales. At 8, he was already somewhat acquainted in his father's library with the older German poets of the 18th century, the best Latin and Italian poets, Roman antiquities, classic works on jurisprudence, books of travel, historical and philosophical treatises, and encyclopedias of all kinds. A little later modern works, forbidden by his father, were secretly obtained and devoured. Evenings at home were spent in reading aloud in various edifying works. Bower's *History of the Popes* was one book so read and reread in its heavy entirety, for according to the elder Goethe's plan a work once begun had always to be finished. In his uncle's library the lad found a delightful translation of Homer with copperplate illustrations. Virgil came to

hand a little later. While the French were in Frankfort, Goethe (between 9 and 12) read the works of the principal French dramatists: all of Racine and Molière, and most of Corneille. In his 13th year he studied Hebrew and read much and long in the Bible; at 14 he read chiefly legal and philosophical books. But he was best satisfied by works in which poetry, religion, and philosophy were united. At 15 he read among other things the works of Wieland, French plays, and the dramas of Lessing. At 16 he was especially impressed by Lessing's *Laokoön* and Dodd's *Beauties of Shakespeare*. To supply the shortcomings in his prescribed training he had recourse to such encyclopedic works as those of Bayle and Gessner.

6. Production and achievement. The free compositions which Goethe wrote at 7½ and 8 include three conversations that possess genuine creative quality and exhibit a remarkable ability in characterization. The "morning salutations" in German, Latin, and Greek, written before he was 9, express charming sentiments in artistic form; but Greek exercises of this period exhibit the faults of a beginner. At 9½ Goethe had amassed a considerable collection of lessons and stories. At 10 he wrote a little play, hoping it might be staged; at 12 he composed a story in the form of letters written in Latin, with a sprinkling of Greek, English, French, Italian, Yiddish, and German. In this year a series of controversial sermons so aroused his interest that he undertook to preserve them by dictation to his father's secretary, and with the help of a few notes he succeeded for several weeks in reconstructing what he had heard for the edification of his father. Gradually, however, interest in this undertaking waned and the report dwindled to a mere outline. Goethe wrote, at 14, a narrative poem, *Joseph,* which, with a collection of other original verses, he presented to his father at Christmas time. Because his muse was employed by a group of young mischief makers for their own ends, Goethe in his early teens nearly fell into serious difficulty. Only timely family intervention set matters straight. A letter that has been preserved from this period, an application for membership in a secret society, is remarkable for its correct phrasing and for the writer's characterization of himself. A number of excellent verses are available from the poet's 16th and 17th years; and to the same period may be credited a tragedy written for his lady, and a poem in honor of his uncle's marriage. With the latter the author himself was delighted. That he did not continue to regard his works with satisfaction is evidenced by the fact that when about 16, he burned all of the manuscripts he could bring together. Goethe's early production was not limited to literature. In home theatricals he took leading parts. He made a plan for a series of paintings to illustrate the life of Joseph and two of these were actually executed by Frankfort artists.

7. Evidences of precocity. At the age of 4 Goethe had learned an Italian song by heart although he could not understand its meaning. A favorite pastime in the very early years was listening to his mother's tales and legends; and if her imagination failed in the course of a narrative, the child supplied the lack by his own fancy,

and great was his delight and enthusiasm when the outcome fulfilled his predictions. When the Christian world was staggered by the Lisbon earthquake, Goethe, aged 6, heard more than one sermon devoted to an explanation of this apparent contradiction of Providence. His comment was as follows: "After all, it is probably much simpler than they suppose. God knows that the immortal soul can suffer no harm through such a fate." Goethe's father early recognized his son's unusual ability, and friends of the family enthusiastically mapped out careers suited to such rare talents. One wished to make him a courtier, another a diplomat, a third a jurist. Goethe's mother, when her son was 9, noting that he was distinguished from the other boys by his erect carriage, mentioned the fact to him in praise. He replied that he would later be distinguished from them in other ways. On another occasion he stated that he would never be satisfied with that which satisfied others. His more than common rapidity of development admitted him to confirmation at an unusually early age (12). Intellectual forwardness appeared in many serious discussions with his tutor. For example the 14-year-old was interested to argue at length that there was no need for a separate study of philosophy, as religion and poetry covered the field. At 16, Goethe was familiar with the culture of Europe and his interests and tastes were those of a scholar and man of the world.

AI IQ 185 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* At the University of Leipzig, Goethe was a recognized intellectual leader among his fellows; and with study he blended social pleasures. Odes and parodies dashed off in a fervor of enthusiasm brought him notoriety as well as praise. Graceful verses were the fruit of a passionate but hopeless attachment, the memory of which was preserved also in his first play *Die Laune des Verliebten,* written at 19. Later, as a distraction in a fit of jealousy, he took to etching and produced a number of landscapes as well as lesser works. At this time irregular living and excitement brought about a bronchial affection, which developed into a serious illness. Returning to Frankfort the invalid spent his days there in etching, drawing, writing, and law study, his activities increasing with recovery. At 20 he was occupied with the study of Shakespeare's works, the language and literature of France and Germany, the theory and history of poetry, music, and the plastic arts, thoughts of God and observations of the world. During this year he held a second orgy of destruction in which he burned all his letters, his verses, and all but two of his plays. From 20⅔ to 22 Goethe lived in Strassburg and now his health gradually returned. He crammed for his university legal examination and studied medicine in his spare time. It was here that he met Herder, five years his senior, the man who influenced him more than any other. Goethe's creative genius was now awake: he realized the meaning of art. The lyrics of this period, the expression of a deep passion have not been surpassed in all literature. Goethe took up the practice of law the following year, but continued also to work on four

dramatic productions, *Faust, Götz, Sokrates,* and *Cäsar.* He wrote on architecture, composed songs, translated Ossian and Pindar, and contributed to reviews. His work took him to the Imperial Chamber of Law at Wetzlar. But law was not his sole concern, for he was preparing the way through his acquaintance with fair Charlotte for the production of *Werther* two years later, a work which made his name known throughout the world. Goethe completed the first version of *Götz,* at 23, but it was not intended for publication; the second version, produced a year later, failed as a drama, but it is "a poem of immortal beauty." In *Werther* Goethe's genius rose to its highest power: "Nothing that he afterward accomplished could outshine the crown of glory which *Werther* laid on his head." During his 25th year the poet made friendships with distinguished men, Lavater, Basedow, and among others the poet Wieland, with whom he quarreled at a distance. Work on gigantic dramatic plots continued, and minor poems flowed from a restless heart and pen.

In the meantime, Goethe and the Duke of Saxe-Weimar had become friends and the following year saw the beginning of Goethe's career as a statesman, which was to continue until his death, 57 years later. To his statesmanship was due in large part the leading position that the little State of Weimar won and held among the governments of Europe.

AII IQ 200 (Rel. coeff. of data, .82)

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HUGO GROTIUS (1583–1645)

A Celebrated Dutch Jurist, Theologian and Poet—the Founder of the Science of International Law

AI IQ 185 AII IQ 190

I. *Family standing.* Grotius was born of an ancient and important family. His great-grandfather was a worthy French Huguenot. His grandfather "combined the names, coats of arms, means and titles of both houses, namely of De Groot and Cornets, and the dignities of both families," those of De Groot having been "inheritable in the family for three centuries"; he was proficient as a scholar, having "reached a high summit of learning in the Hebrew, Greek, and Latin languages"; and in civic affairs he attained the eminence of town councilman and burgomaster. The grandmother was a daughter of one of the noblest families of Holland. Hugo's father was a man of

scholarly training and cultured interests. A Master of Arts and Philosophy and also a Doctor of Laws he was a great lover and protector of learning. He held the honored civic offices of alderman, town councilman, and burgomaster and, of yet more distinction, one of the three directorships of the University of Leyden. The mother of Grotius was Alida van Overschie "of illustrious family."

II. *Development to age 17.*

1. Interests. Young Grotius found a wide variety of interests in his studies. He was as well informed in the sciences as in philosophy, as interested in religion as in law. He was early taught by his father the value of the harmonious development and discipline of body and mind.

2. Education. Hugo remained at home in the care of his parents until he was 8 or 9, and was instructed by them in the rudiments of the Christian doctrine and impressed with sound principles of morality and honor. Before he was 7, the foundations of his knowledge of the Latin and Greek languages were laid by his tutor, "an excellent man." When about 8 years of age, Grotius was sent to The Hague, where his studies were directed by Uitenbogaerd, the leading divine among the Dutch reformers and a man of international influence. At 11, the lad entered the University of Leyden, where he delved into Greek and Roman history, philosophy, astronomy, mathematics, religion, and law with great thoroughness. He left the university at 14, after delivering the required public thesis on mathematics, philosophy, and law, and, after a year in France, received the degree of Doctor of Laws from the University of Orleans.

3. School standing and progress. In his earliest years Grotius showed "great aptitude for the acquisition of learning, great taste, judgment, and application, and a wonderful memory." At the University of Leyden, he so distinguished himself by his diligence and talents, that even the learned Scaliger noticed him and condescended to direct his studies. Douza, another great literary man, celebrated the boy's praises in verse, declaring that "Grotius (then 11) would soon excel all his contemporaries, and bear a comparison with the most learned of the ancients."

4. Friends and associates. At home the boy came in contact with some of the most distinguished representatives of European learning and culture. While a student at the university, he lived with Franciscus Junius, a true Christian, famous for his burning zeal in behalf of the Reformation, and imbibed from him so strong and pure a religious spirit that when only 12 years old he converted his mother from Catholicism to the Reformed faith. In Leyden he was very intimate with the great Scaliger, into whose home as a "temple of wisdom" he, together with his friends Peter Scriverius, Dominicus Baudius, and Daniel Heinsius had free access. In France he made many friends. He was appointed private secretary to the young Prince of France and authorized to retain the honorable title after his return to his own country.

5. Reading. (No specific record.)

6. Achievement and production. In his 8th year, Grotius wrote some remarkable Latin verse. Of two pieces preserved, one, written on the occasion of the shaking off of Spanish rule in a Dutch province, was presented to Prince Maurice; the other, a word of comfort addressed to his father, was written after the death of a younger brother. At 12 or 13, Hugo published three poems: an ode in Greek to Prince Henry Frederic of Nassau, a Latin poem in praise of one of his professors, and a Latin epithalamium. At 14 he wrote *Triumphus Gallicus,* a witty song of triumph, after the style of Catullus, and prepared a new edition of Martianus Capella's *Marriage of Mercury and Philology* and *Seven Treatises on the Liberal Arts,* with clear, brief notes. Because of his absence in France these works were not published until two years later. The same year Grotius took part in two heroic debates on philosophical questions. At 15 the youth accompanied the great statesmen sent by Holland on a mission to King Henry of France. His fame preceded him and he was introduced to the king, who, apparently greatly impressed by his striking personality, called him "the miracle of Holland," presented him with a gold chain and his picture, and wished to knight him, but this last honor Grotius declined. At 16 Grotius went to The Hague to practice law; he began to write on legal subjects, and published a Latin translation of Stevin's treatise, *Navigation by Compass.* This production showed that the writer was as well informed in the sciences, and especially mathematics, as in philosophy, logic, and rhetoric, in which he had already established so high a reputation.

7. Evidences of precocity. In his earliest youth Grotius gave clear proof of his brilliant art, noble character, and untiring diligence, being as quick of body as of mind. Before he was 8, he was so absorbed in his studies that he spent a great part of the night with his books and when his mother, "preferring that he enjoy his proper rest at night, refused to give him candles, he used his Sunday money secretly to buy them." So intent was he on what seemed to him far more important matters that he would scarcely give himself time for correct orthography. Learned men everywhere spoke of young Grotius as a prodigy; when he was no more than 14, Pontanus called him "a youth of greatest hopes," and at 16 he was pronounced by Meursius "a youth without an equal." (See also II 3 and 6.)

AI IQ 185 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* At 17 the young lawyer was pleading before the highest tribunal of the land, at the same time producing writings of such superior quality that the scholars Scaliger, De Thou, Casaubon, Vossius, and others publicly avowed their surprise, compared him to Erasmus, and declared that "the whole world could not produce a more learned man than Grotius." At 17 he wrote his *Epithalamium Regium,* published the *Aratus* (an excellent treatise on science and art, which also contained some original Latin verses pronounced equal to those of Cicero), and his *Prosopopeia* (which was so well thought of that it was ascribed to Scaliger,

the greatest scholar of the time). The *Prosopopeia* was translated into French and Greek by distinguished contemporaries. At 18 Grotius published his first tragedy, *Adamus Exul,* which evoked universal praise from learned men, although the author himself was dissatisfied with it. A second drama of his late teens, *Christus Patiens,* praised as "a model of perfect tragedy," was not published until Grotius was 25. At about the same time the youth helped in the writing of noble elegies in memory of two of his professors who succumbed to the plague. A couple of years later (at 21) he produced a Latin poem on the siege of Ostend. At 18 he was chosen by the States-General as historiographer of the United Provinces. He seems to have been unusually successful as a lawyer: he was called upon for advice by Prince Maurice, and at 22 was asked by Professor Baudius to protect, in court, his friend Scriverius in a case considered hopeless unless indeed "the whole Grotius is given to it." At 24 the young lawyer was made Attorney General of the Court of Holland, Zeeland, and Friesland. The following year he married. At 25, so great was Grotius' reputation that "it almost seemed as though the learned men of Holland were afraid of the tremendous intellect of the young scholar." At 22 he had composed an important legal treatise, *De Jure Praedae,* which contains the germ of his great work, *De Juris Pacis et Belli,* only one chapter of which was published during the writer's lifetime. This was the *Mare Liberum,* which appeared when Grotius was 26, proclaiming the principle that was, through his influence, to become a fundamental tenet of international law, that the ocean is free to all nations.

AII IQ 190 (Rel. coeff. of data, .75)

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GOTTFRIED WILHELM LEIBNITZ (1646–1717)

A Celebrated German Philosopher and Mathematician

AI IQ 185 AII IQ 190

I. *Family standing.* Leibnitz' forebears included knights of the realm and men of religious and political eminence who enjoyed the favor of princes. Gottfried's father was a practicing jurist and also professor of moral philosophy at the university. His interest, like his practice, combined philosophical theory with its application. Leibnitz' mother was the daughter of a famous legal scholar.

II. *Development to age 17.*

1. Interests. Leibnitz found his most absorbing childhood interest in reading, at first history and poetry, later philosophy and logic. He sought at a very early age to make his knowledge correct, ready,

and complete by classifying and systematizing it, by using signs and characters in place of words, by generalizing, and by bringing every inquiry under a principle and a method. Thus naturally he was drawn through philosophy to mathematics. He was early concerned about the purpose, the meaning, and the practical outcome of everything; he strove especially to fathom the meaning of reality, of the true essence of things and of their connection with each other. His mind could not be filled up by a single system of ideas.

2. Education. Leibnitz was brought up in a studious and scientific atmosphere; he enjoyed an education very unusual in the period of German decline in which his early years were passed. His father, when teaching him to read, made every effort to instil in him the love of history, both biblical and secular. After his father's death, which occurred when the boy was 6, his mother devoted herself to his education and, in order that his formal training might be of the best, sent him to the Nicolai School in Leipzig. As a result of school instruction supplemented by independent study, Gottfried understood Latin before he was 12 and began also to "stammer in Greek." Before he was 15 he had completed an impartial and comprehensive course of self-education preparatory to university entrance. From the age of 15 to 17, following the course prescribed by his advisers, he devoted himself to the study of law, but he did not neglect his philosophical studies. Thus it came about that through Cardan and Campanella, and finally Descartes, he was turned gradually from the scholastic to the modern "mechanical" view. Just before the end of his 17th year he received the degree of Bachelor. He then repaired to the University of Jena where he spent a semester in the study of mathematics under Weigel, a scholar of fame.

3. School standing and progress. At a very early age Leibnitz' insatiable eagerness for mental food was so marked that his teachers tried to hold him back. Before he had reached the study of history and poetry in school he was familiar with both, and before he entered the university, at 14⅔, he was thoroughly at home in Latin, had made good progress in Greek, was acquainted with the historians and poets of antiquity and with the contemporary range of science (mathematics and physics excepted), was deeply read and interested in ancient and scholastic philosophy and in the current theological discussions. He had not filled his mind with things to be unlearned; and he had accustomed himself to going always to the root of whatever science he undertook to learn. At the university Leibnitz' pre-eminence was recognized by colleagues and teachers alike; when the youth presented his dissertation to a committee presided over by Thomasius the elder, that learned doctor took occasion to mention the candidate's extreme youth and his ability to discuss the most difficult and complicated problems. Leibnitz' studies, in college and out, his wide reading, and his practical knowledge (he understood the practice of law in addition to its theory) had made him the first student in class exercises and discussions. At Jena (aged 16 to 17) he exercised his gift in argument as a member of a university philosophical society.

4. Friends and associates. Leibnitz' associates were the members of his family, his teachers, and his fellow-students. He was peculiarly fortunate in finding at least one wise adviser at each stage of his progress, although his originality of mind made him intellectually independent at a very early age.

5. Reading. At the age of 8, and quite by accident, Leibnitz found a Livy and a chronological Thesaurus by Calvisius. The latter he could read and understand fairly well, because he was already familiar with general history; but the Livy presented new material. Although he had no dictionary, he was not in the least deterred from an attempt to read the unfamiliar work; he looked at the pictures, read here and there, then reread from the beginning until at length the whole became clear to him. Afterward he referred to his exploit at school, whereupon the teacher made inquiries of his guardians and instructed them not to permit him in the future to read books that would anticipate prescribed school studies. A more enlightened friend became interested in the case, questioned the boy, found his knowledge sound, convinced the guardians that the teacher's policy was wrong, and obtained for the little scholar the key to his father's library. There he busied himself for hours at a time, taking up every book that pleased his eye. Thus he read, following his own fancy, Cicero and Quintilian, Seneca and Pliny, Herodotus and Xenophon, Plato, the Roman historians, and the Greek and Latin fathers. History and poetry were early favorites, but religion and the sciences were not neglected. When at 12 or 13 he came to the study of logic, he was greatly struck by "the ordering and analysis of thoughts." He fell to arranging books and ideas in categories of his own, analyzing and classifying their elements. This independent interest led him naturally to the study of philosophy, to Plato, Aristotle, and the Scholastics. At about the same time he began to read the theological works with which his father's library abounded, delighting equally in the writings of the Lutherans and the Reformed Church scholars, the Jesuits and the Jansenists, the Thomists and the Arminians. In a university thesis, presented before he was 17, Leibnitz included examples from practical geometry and from mechanics, and he quoted and discussed the systems of Bacon, Cardan, Campanella, Kepler, Galileo, Descartes, Aristotle, Plato, Archimedes, Hipparchus, Diophantus, and others.

6. Production and achievement. At 13 Leibnitz had acquired both skill and facility in verse writing. And when one day a schoolfellow who was to have given a festival address in verse, fell ill shortly before the great event, the future philosopher supplied the missing poem, a feat which no other child was willing or able to undertake. Shutting himself in his study he wrote 300 hexameters between daybreak and noonday, and when his work was recited it won the applause of the teachers. At 14 Leibnitz wrote a number of essays on logic and philosophy; one of these was an alphabet of human thought "on a strictly logical basis." Just before the close of his 17th year, his first philosophical publication, *On the Principle of Individuation,* appeared. This treatise gives evidence of the young

author's extensive knowledge of scholastic learning and of his dexterity in handling dialectical methods.

7. Evidences of precocity. Leibnitz' parents believed their son to be destined for great things, so striking were his early interest in books and his understanding of his father's instruction. (See also II 1, 2, 3, 4, 5, 6.)

AI IQ 185 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* From the University of Jena, Leibnitz returned at 17 to Leipzig where he remained in residence until his 21st year. Here he was very active: he engaged frequently in disputations, read widely, and at the age of 17½ gained the Master's degree by defending a legal dissertation with great brilliance. He was equally interested in the two great objects of the modern science of law: the first a philosophical inquiry into the principles of right, the second a systematic arrangement of traditional legal matter. At 19½ he wrote a mathematical treatise which he was able much later to look back upon as a fairly satisfactory treatment. At 20 he was known both at home and abroad as a youthful scholar of great promise. His reputation was, however, not sufficient to overcome a prejudice against granting the degree of Doctor to one so young. After being advised to defer his petition for the degree for a year he left the university and the city in disgust and went to Altdorf, where he was soon awarded the coveted degree with expressions of praise for both thesis and oral disputation. In consequence of the brilliance of his achievement he was offered, but declined, an Altdorf professorship. At Nuremberg he became secretary to a society of alchemists.

The next seven years (aged 20 to 27) he spent chiefly at Frankfort. He wrote and published books, pamphlets, and theses on law, philosophy, politics, religion, the book trade, mechanics, and mensuration. At 24 he was appointed councillor and member of the Supreme Court of Mainz. His political activity and influence increased. He advocated the formation of an alliance of nations; and his plan was afterward carried out. In the next year (aged 25), at Strassburg, he proposed a crusade in which France, Austria, and Germany should participate, and was sent to Paris relative to the matter. His mission failed but he remained in the French capital to study mathematics. There he came in contact with eminent statesmen and scientists (including especially Huygens) who inspired him with new enthusiasm for his varied undertakings.

AII IQ 190 (Rel. coeff. of data, .75)

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CHAPTER XXIII

CASES RATED AT AI IQ 190 TO 200

JOHN STUART MILL (1806–1873)

A Celebrated English Philosophical Writer, Logician, and Economist

AI IQ 190 AII IQ 170

I. *Family standing.* Mill's paternal grandfather was a shoemaker. His father, James Mill, the Utilitarian philosopher, author of a standard *History of India* in addition to philosophical works, was for seventeen years a member of the East India House, and for the last six of these "chief examiner." Mill's mother was the daughter of a widow who managed a "lunatic asylum" started by her husband. James Mill seems to have looked down upon his wife.

II. *Development to age 17.*

1. Interests. John Stuart Mill had no childhood; his interests and his activities were mature from the first. In his early years he was not allowed to associate with children of his own age. Because his attention was directed exclusively to abstractions, he was inattentive and unobservant in matters of daily life. Brought up an agnostic and a questioner, his one concern was always the search for fundamental truth. At 15, on reading the works of Bentham, Mill reached a turning-point in his intellectual life: the rational materialist became at that time an outspoken champion of democracy and a determined reformer of existing world conditions.

2. Education. Until he was 14, Mill was educated at home by his father. He began to learn Greek at 3; and from then to his 9th year he studied Greek classics, making daily reports of his reading. At the same time under his father's direction he read innumerable historical works. At 7 he read Plato; at 8 he began the study of Latin. Before the end of the year he was busily reading the classical Latin writers. He did not neglect mathematics: at 8 his course included geometry and algebra; at 9 conic sections, spherics, and Newton's arithmetic were added. In the latter he "performed all the problems without the book and most of them without any help from the book." At 10 and 11 both mathematical and classical studies were continued; astronomy and mechanical philosophy were also included. In fluxions, begun at 11, Mill was largely self-taught. One part of his course, the writing of English verse, he heartily disliked. At the age of 12, philosophy and logic, including argumentation, became important parts of the program. Daily debate with his father, who taught him above all things to accept no opinion

unchallenged, was a most stimulating exercise. At 13 a complete course in political economy was undertaken with intensive supplementary reading. Young Mill attended also a course of lectures on chemistry at the royal military college. In spite of the wide variety of subjects and the early age at which he started to study them, Mill's education was not one of cram; complete understanding was made to precede, or at least to accompany, every forward step. Self-conceit of a sort was guarded against, for the the boy never heard himself praised; moreover, he had no one with whom to compare himself except his father, and this comparison was always humbling to his own pretensions. His father's frequent request for the definition of words used, accentuated young Mill's sense of ignorance.

At 14 John visited France as the guest of General Sir Samuel Bentham, and there spent his days in study, reading, driving, sightseeing, swimming, in learning to sing, dance, fence, and ride, and occasionally in collecting plants and insects. The plan of study was both intensive and extensive, including as it did continuation of the studies already begun as well as vast amounts of reading, especially in French literature. Nine hours were daily devoted to hard intellectual labor, requiring intensive application. On the recommendation of the Benthams and of a distinguished French chemist, Mill was allowed to remain in France through the winter to attend lectures at Montpellier University. These included chemistry, zoölogy, metaphysics, and logic; mathematics he continued under a private tutor. The most important result of Mill's stay in France was the sympathetic acquaintance which he gained there with French modes of thought and action. The following years, his 16th and 17th, were spent at home in the study of philosophy, history, psychology, and in literary composition. At 16, Mill began the study of law with John Austin.

3. School standing and progress. (See II 2.)

4. Friends and associates. Until Mill was 14 his associates were the members of his family—chiefly his father—and his father's friends. He was treated as an intellectual equal by men of high ability and attainment even in his early years. In France he was associated with the distinguished family of General Bentham and their friends. On his return he was much with Grote and John Austin, both of whom influenced him profoundly. At 16 Mill became acquainted with Charles Austin, the first real friend who was almost a contemporary. On a visit to Cambridge at 16, Mill made an unusual impression upon a number of undergraduates by his great conversational power, although the students he met were acquainted with Macaulay and Austin.

5. Reading. Mill read Greek and history from his 4th year onward; Plato at 7; Thucydides, Anacreon, Sophocles, Euripides, Demosthenes, Aristophanes, and Cicero at 8; the *Odyssey*, Theocritus, Pindar, Æschines, and Livy at 9; and progressively more difficult classical writers from 10 onward; Keill's *Astronomy* and Robinson's *Mechanical Philosophy* (his special delight); universal history; and English literature, especially Shakespeare, Dryden, and Scott. Scien-

tific treatises in chemistry and physics were special favorites. At 14 the French writers made up a large share of the reading program. At 15 and 16 the works of Condillac, Dumont, Bentham, Blackstone, Locke, Helvetius, and the Scottish philosophers were added, also a history of the French Revolution, and an analysis of the influence of natural religion. The careful study to which many of these books were subjected is indicated by close marginal notes.

6. Production and achievement. A history of Rome written at 6½ is an extraordinary production for so young a lad. Letters written at 8 show an excellent style and precocious interests. A synoptic table of Aristotle's *Rhetoric* was made by Mill at 11; and during the same year he prepared a number of histories, verses, and metrical translations. Before he was 12 he had begun to assist his father in correcting the proof of the history of India; from 12 to 14 he prepared notes from his father's discourses to him during their walks together and these became the basis for James Mill's *Elements of Political Economy.* At 13 and 14 John made complete analyses of some of the orations of Demosthenes. At 15 and 16 he instructed his younger brothers and sisters in the subjects his father had taught him. At 16 he wrote his first argumentative essay, and this was followed by a number of others on various topics. Two letters in defense of his father's economic views were printed, before their author was 17, in *The Traveller,* a newspaper owned by an opponent and edited by a friend of James Mill. With the support of a group of young men of ability and independent thought, young Mill organized, before he was 18, the Utilitarian Society. He was even then the leader of the group and from that time he "had considerable influence on their mental progress."

7. Evidences of precocity. (See II 2 and 5.) At the age of 5 Mill discussed the comparative merits of Marlborough and Wellington with Lady Spencer, the wife of the First Lord of the Admiralty. The boy's distinctive ability was early recognized by critical observers and, writing of him at 14, his father's friend Bain sums up his achievement as follows: "If I were to compare . . . . him with the most intellectual youth that I have ever known, or heard or read of, I should say that his attainments on the whole are not unparalleled, though, I admit, very rare. His classical knowledge, such as it is, might be forced upon a clever youth of that age, the mathematics could not be so easily commanded.

"But the one thing, in my judgment, where Mill was most markedly in advance of his years, was logic. It was not merely that he had read treatises on the Formal Logic, as well as Robbe's *Computatio sive Logica,* but that he was able to chop logic with his father in regard to the foundations and demonstrations of geometry. I have never known a similar case of precocity. We must remember, however, that while his father could not be expected to teach him everything, yet, in point of fact, there were a few things that he could and did teach effectually: one of these was logic; the others were political economy, historical philosophy, and politics, all of which were eminently his own subjects. On these, John was a truly

precocious youth; his innate aptitudes, which must have been great, received the utmost stimulation that it was possible to apply."

AI IQ 190 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* At 17 Mill entered the service of the East India Company, with whom he remained until he was 52. During his first year of service he made many journalistic contributions, and in the following year he wrote for the newly founded *Westminster Review,* his articles being chiefly book reviews on history, politics, or political economy, or discussions on special political topics. His friendship with Roebuck began at this time. At 19 he commenced editing Bentham's work on *Evidence,* an enormous labor, entailing not only selection and revision of the author's material but the addition of suitable supplementary discussions from other writers. In this year Mill started the *Parliamentary History and Review,* attended debates and readings, the latter field of activity covering the works of his father, Ricardo, and Hobbes. In the following year he continued his debates and readings, and his book reviews for the *Westminster.* At this time the first signs appeared of an approaching mental crisis; he fell into a state of nervous depression during which he felt that his tasks were carried on quite mechanically. At 20 his outward life followed the same course: debates, reviews, readings, and discussions, the subject logic. At 22 appeared his last article for the *Westminster,* one on Scott's *Life of Napoleon.* He was promoted assistant examiner at the East India Company; and he commenced his friendship with Maurice and Sterling. During the next year the subject of the discussions was the analyses of the human mind. At 24, excited by the Revolution, Mill visited Paris and there became acquainted with the French philosophy of history. On his return to England he prepared a series of articles on French politics which soon appeared in various reviews. He began to outline his ideas on the logical distinction between terms, a study which developed in the next year (Mill's 26th) to logical axioms and a theory of syllogisms. He continued his articles on the spirit of the age and published them in the *Examiner.* In this year he first met his future wife. It is noteworthy that Mill did not read Wordsworth until his 22nd year and that he was then surprised to find that the poet "belonged" to him as well as to others.

AII IQ 170 (Rel. coeff. of data, .82)

REFERENCES

Mill, John Stuart, *Autobiography,* Harvard Classics, New York, Collier, 1909.

Bain, Alexander, *John Stuart Mill. A Criticism with Personal Recollections,* London, Longmans, 1882.

Courtney, William Leonard, *Life of John Stuart Mill,* London, Scott, 1889.

CHAPTER XXIV

CASE STUDIES OF GROUP B

ROBERT FULTON (1765–1815)

An American Engineer and Inventor

BI IQ 105 BII IQ 115

I. *Family standing.* Fulton's father was probably of Irish descent. For many years he held offices of public trust in Lancaster, Pennsylvania. Later he turned to farming, but without bettering his financial status. He died when his son was three years old. The mother "appears to have been a woman of superior attainments."

II. *Development to age 17.*

1. Interests. Of Robert's early interests it is reported that he was ingenious in mechanical experiments and that, like his older fellow-townsman, Benjamin West, he displayed a taste for painting. This taste, however, he found it hard to gratify during the Revolutionary period as materials were difficult to obtain, and sympathy for such a pastime was wanting. (See also II 6.)

2. Education. Until he was 7 years old, Robert was taught at home by his mother. Thereafter he attended the school of one Caleb Johnson, a Quaker and a Tory.

3. School standing and progress. Robert did not distinguish himself at school.

4. Friends and associates. When about 14 years of age, he became acquainted with a mechanician's young apprentice who was four years his senior. Of his other associates there is no specific record.

5. Reading. (No record.)

6. Production and achievement. Robert's early mechanical achievements were various. He pounded out lead for a pencil; performed experiments with quicksilver, which, however, he "was unwilling to describe"; drew designs for firearms; and became expert in determining the carrying distance of different bores and balls. When he was about 13 he manufactured an air-gun; of its success, however, there is no record. Before he was 15 he manufactured a small working model of a fishing boat to be propelled by paddles. A set of paddle-wheels operated by double-crank motion, which were actually used on a fishing boat, are also attributed to his workmanship.

7. Evidences of precocity. (See II 6.)

BI IQ 105 (Rel. coeff. of data, .11)

III. *Development from 17 to 26.* At 17 Fulton left his home in Lancaster and established himself in Philadelphia. Willing to undertake any available employment, he obtained orders for machinery and carriage designs, and executed a number of paintings (miniatures) still extant. By the age of 20 he had met with some success in his painting. At 21 he left Philadelphia and sailed for England, and there won the patronage of Benjamin West, probably working under the supervision of the elder artist. At the age of 25 Fulton exhibited two portraits in the Royal Academy, and four others in the collection of the Royal Society of British Artists. His work was favorably noticed, and financial as well as artistic success was in sight.

BII IQ 115 (Rel. coeff. of data, .20)

REFERENCES

Dickinson, H. W., *Robert Fulton, Engineer and Artist, His Life and Works*, London, John Lane, 1913.

Sutcliffe, Alice Crary, *Robert Fulton and the Clermont*, New York, Century, 1909.

MRS. GASKELL (ELIZABETH CLEGHORN STEVENSON) 1810–1865

An English Novelist and Biographer

BI IQ 110 BII IQ 115

I. *Family standing.* Mrs. Gaskell's father was at various times a Unitarian minister, a farmer, a boarding-house keeper for university students, an editor of *Scots Magazine*, a contributor to the *Edinburgh Review*, and a keeper of the records of the treasury. Her mother, who died soon after the daughter's birth, was a member of a family "of great account in Cheshire."

II. *Development to age 17.*

1. Interests. (No record.)

2. Education. From 14 to 16, Elizabeth attended a boarding school at Stratford-on-Avon, where she was taught Latin, French, and Italian. At 16 or 17 she made several visits to London.

3. School standing and progress. (No record.)

4. Friends and associates. No record has been found of others than relatives and school associates.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. (No record.)

BI IQ 110 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Between the ages of 17 and 21, Elizabeth spent two winters at Newcastle-on-Tyne and a season at Edinburgh. The visit to the latter city furnished material for the introduction to *Round the Sofa.* According to later family tradition, Elizabeth had written a short story before her marriage at the age

of 21. Through the interest in social problems of William Gaskell, Unitarian minister of Manchester, who became her husband, the young author found an opportunity to observe the labor conflicts of the cities, and this experience afforded material for her later writings.

BII IQ 115 (Rel. coeff. of data, .11)

REFERENCE

More, Paul Elmer, *Shelburne Essays*, Vol. 5, pp. 66–85, New York, Putnam, 1908.

PHILIP H. SHERIDAN (1831–1888)

An American General

BI IQ 110 BII IQ 125

I. *Family standing.* Sheridan's father, originally an Irish farmer, became a contractor in America, but after suffering financial reverses returned to farming, although he remained in the country of his adoption. The mother (who was also a second cousin of the father) was said to possess "excellent common sense and clear discernment" which "in every way fitted her" for her maternal duties.

II. *Development to age 17.*

1. Interests. Sheridan's "sole wish was to become a soldier, and his highest aspiration to go to West Point."

2. Education. After receiving his earliest training under the guidance of his mother he was sent, when old enough, to the village school, where he acquired a smattering of geography, history, arithmetic, and grammar.

3. School standing and progress. Sheridan was not unlike many other boys, for he played truant "many a time."

4. Friends and associates. No specific information. (See II 3.)

5. Reading. Between the ages of 15 and 17 Sheridan read so much and to such good advantage that he became a "local authority" in history.

6. Production and achievement. When about 14 years of age Sheridan went to work in a grocery store; at 15 he was engaged by a competitor of his first employer; and before the year was out, he became bookkeeper in the dry goods store of the most enterprising man in the village at a salary five times that received in his first employment.

7. Evidences of precocity. (No record.)

BI IQ 110 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 Sheridan entered West Point, having, after zealous preparatory study, secured an appointment on his own initiative. His scholarship improved steadily from one term's examination to another but at the age of 20 he was suspended for fighting a duel. Because of the offender's previous good conduct, the sentence imposed in this case was a light one. At 22 Sheridan

graduated as thirty-fourth in a class of fifty-two, and in the same year he was commissioned a brevet second lieutenant in the U.S. Infantry. At 23 he was promoted to a second lieutenancy; at 24 he was placed as the only officer in charge of three hundred recruits; and during the same year, for services in subduing the Yakima Indians, he was "specially mentioned for his gallantry" in General Scott's report from Army Headquarters in New York. During his years of service, Sheridan continued his self-instruction, chiefly in subjects connected with his profession.

BII IQ 125 (Rel. coeff. of data, .60)

REFERENCES

Sheridan, P. H., *Personal Memoirs*, New York, Webster, 1888. (Two vols.)
Unveiling of the Equestrian Statue of General Philip H. Sheridan, compiled by the New York Sheridan Monument Commission, Albany, Press of J. B. Lyon Co., 1916.

HANS CHRISTIAN ANDERSEN (1805–1875)

A Danish Novelist and Poet; Writer of Fairy Tales and Travels

BI IQ 115 BII IQ 125

I. *Family standing.* Hans Christian's great-grandmother, a member of a noble family, ran away from home to marry beneath her social status. The poet's father was a poor shoemaker of delicate health, endowed with a poetic nature, a fondness for reading, and a liberal religious faith. He desired more than all else the education and advancement of his son. The poet's mother was sensitive, gentle, religious.

II. *Development to age 17.*

1. Interests. Hans Christian's earliest recollections were of Sunday walks in the woods with his father. At the age of 3 he was much impressed by the sight of Spanish soldiers, and at 6 the coming of "the big comet" aroused his superstitious delight. During his childhood he took little interest in boys' games at school, but remained sitting within doors where his greatest pleasure was in making clothes for the dolls of his puppet show or in gazing at imagined scenes among the sun-illumined leaves. He early expressed a desire to go upon the stage; but his mother opposed his wish, urging him to become a tailor.

2. Education. An old woman who had an A B C school taught Hans Christian his letters, to spell, and "to read right." Later the lad attended a boys' school. From his 13th to his 14th year he was enrolled in a charity school where he received instruction in religion, writing, and arithmetic; at this time he was also prepared for confirmation by the provost.

3. School standing and progress. One day at the A B C school "having got a hit of the rod, I rose immediately, took my book, and without further ceremony went home to my mother, asked that I might go to another school, and that was granted me." At the new school the little fellow became a favorite of the teacher, who petted

him in various ways. Later, at the charity school, the lad appears to have done poor work in arithmetic; but he must have shown ability in some subjects, for his mother, boasting of his good memory, said, "Hans Christian does not need to open his book and yet he knows his lesson."

4. Friends and associates. Hans Christian's associates were his parents, the neighbors, and his school companions. Among the latter was a little girl, the only one in attendance at the boys' school, who became a devoted comrade. She remained his confidante until the youthful poet's imagination carried him beyond her practical comprehension and she cried out, "He is a fool like his grandfather!" (See also II 6.)

5. Reading. Hans Christian's father had read Holberg's plays aloud to his son, and after the father's death the boy, aged 11, continued alone the reading his father had begun, adding to Holberg's dramas the plays of Shakespeare. More general works, from a circulating library, were available in the home of friends. In Copenhagen Hans Christian (aged 16) bought old play books with his small earnings, and he read voluminously in the university library.

6. Production and achievement. At 11 or a little later, and during the period of his greatest interest in his puppet theater, Hans Christian began to write little plays. The first of these, a tragedy borrowed from the old song of Pyramus and Thisbe, was read aloud to all the neighbors by its author to his own great satisfaction and joy. Hans Christian was much surprised and depressed when one of his hearers ridiculed his production. After being comforted by his mother he began a second piece in which a king and a queen were among the characters. To their majesties, in order to emphasize their rank, he gave speeches peppered with English, French, and German words. This play also he was pleased to read aloud. In a factory where the lad was at this time employed the older workmen performed his duties so that he might spend his time singing and acting for them. The boy was happy in these surroundings until a rude jibe from a fellow-worker caused him to leave his job and the premises. At about the same time the boy gave expression to another phase of artistry by making a beautiful white pincushion for an aristocratic lady whom he admired. At the age of 13 Hans Christian acted minor parts with the Royal Theater Company in his native village, and at 14, sure of a successful future on the stage, he journeyed to Copenhagen, armed with a letter of introduction to a well-known dancer. After many discouragements in the city he finally won the patronage of distinguished men. Through their kindness he received instruction in singing, and in dancing at the Royal Theater. His joy was boundless when at length he was given a few small parts to act. During this time he tried his hand at writing, but met with no success.

7. Evidences of precocity. When still quite small, Hans Christian was a welcome guest in the spinning-room of the poorhouse, and there on one occasion he delivered an illustrated lecture on anatomy to the inmates, an effort that greatly impressed his elderly and decrepit

audience. In his early years he was considered "a strange, clever child" who would not live long. His imagination was stimulated by the fairy stories he was told at the poorhouse and by the sights he had seen in the neighboring insane hospital. Once when gleaning with others in a forbidden harvest field, he won the interest and patronage of the bailiff, who would have struck the little trespasser, by exclaiming: "How dare you strike me when God can see it?" The strong, stern man looked at him, patted him on the cheeks, asked his name, and gave him money. Hans Christian's mother was led by this and other episodes to regard her son as an unusual child, but among the boys he was derided as "the play-writer." He would study the list of persons in plays and think out a whole comedy for himself. Often alone at home, for his mother went out to work, he occupied himself with his little puppet theater, with the puppets, and with their parts. Several influential families in the town near by became interested in Hans Christian and invited him to visit them. In the aristocratic houses he met, among others, Prince Christian, afterward King of Denmark.

BI IQ 115 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Andersen's first published work, a volume of "miserable poems," appeared when its writer was 17. From his 18th to his 23rd year, he attended school as a ward of the king. Although discouraged and unhappy, he seems to have done fairly well, for at 22 he was able to enter the university. At 23 he had written and published *A Journey on Foot from the Holm Canal to the East Point of Amack,* as well as a volume of minor works. The young author was much elated by praise and hurt by blame of his writings, for then as always he was sensitive and sentimental. Before he was 24 Anderson had passed his second academic examination with high honors. At 25 he made a long journey through his native country, the remembrance of which re-echoes in later works.

BII IQ 125 (Rel. coeff. of data, .60)

REFERENCE

Andersen, Hans Christian, *The Story of My Life* (English tr.), New York, Hurd, 1871.

WILLIAM LLOYD GARRISON (1805–1879)

An American Abolitionist

BI IQ 115 BII IQ 130

I. *Family standing.* Garrison's father, a sea captain, was remembered by his contemporaries as a "smart man, bright at 'most everything." Although possessing qualities that led to his being described as genial, social, and affectionate, he deserted his family when his son William Lloyd was 3 years old. The son wrote of his mother: "Her mind was of the first order . . . . clear, vigorous, creative, and lustrous, and sanctified by an ever-glowing piety." She was mirthful as well, and had a sense of the humorous.

II. *Development to age 17.*

1. Interests. As a little boy William Lloyd enjoyed games and sports such as hoops, swimming, skating, boating, snowballing, and marbles. When he was about 14, he wished to be apprenticed in a trade because, to quote his mother, he could then "go to work and help maintain his mother: a very good resolve for a child of 14." Garrison became interested in politics at an early age. He gave ardent support to the Federalist party at a time when party feeling ran high in the state.

2. Education. After receiving his first training at the primary or "writing school," he was sent away from home for three months, at the age of 6, to attend grammar school. At the close of this brief session it was necessary for him to leave school to help earn the family living. At 10 he so longed to return to school that he was sent back to the Grammar School in Newburyport, where he remained until he was 11.

3. School standing and progress. In his earliest school days Garrison was slow in mastering the alphabet, and so was surpassed even by his little sister, two and one-half years his junior. Left-handedness, which the master insisted he must overcome, increased his difficulties, but finally, and in spite of all, he attained a good penmanship. Toward the end of his schooling in Newburyport, his mother wrote expressing her pleasure in his "good behavior" and his "improvement" in school.

4. Friends and associates. (No record.)

5. Reading. William early evinced a taste for poetry. He was fond of fiction and romance.

6. Production and achievement. At 6 or before, he began his business career, selling molasses candy on election and training days. Between 6 and 9 his singing voice was remarkable for its beauty, and he sometimes acted as chorister in the Baptist church. When 9 years old, he was apprenticed to a Quaker shoemaker and learned in a few months to make a "tolerable shoe." A period of schooling was followed by an apprenticeship to a cabinet-maker. By the end of six weeks (aged about 12) he could make a toy bureau and help with veneering, but he was so homesick that he ran away. At or near the age of 13, he was apprenticed to the printer of the Newburyport *Herald.* He soon learned the printing trade, finding it "a positive recreation"; he quickly grew expert and accurate as a compositor, and greatly pleased the editor by his superior performance. At 16½ his first published work appeared, a discussion, *The Breach of the Marriage Promise,* over the signature "An Old Bachelor." A second communication in similar vein followed in three days, and a "highly imaginative" account of a shipwreck within a week. A little later the young journalist contributed two articles on South American affairs.

7. Evidences of precocity. (See II 1 and 6.)

BI IQ 115 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At the age of 20 Garrison completed his apprenticeship with the *Herald* and left his post with a considerable record of published political and literary articles. From 20 to 25 he edited various papers, making his personality felt wherever he wrote. He was 22 when a visit from Lundy, anti-slavery advocate, determined him to devote his life to philanthropy and reform. A year later he and his new friend entered into close co-operation when Garrison became editor of the *Census of Universal Emancipation.* At 24 Garrison was convicted of libel for publications upon the slave trade and imprisoned. At 25 he established the *Liberator,* whose policy was to demand immediate emancipation.

BII IQ 130 (Rel. coeff. of data, .60)

REFERENCES

Phillips, Wendell, *William Lloyd Garrison,* Boston, Houghton, 1889.
Smith, Goldwin, *The Moral Crusader William Lloyd Garrison,* New York, Funk & Wagnalls, 1892.

GEORGE WILLIAM FREDERICK VILLIERS, FOURTH EARL OF CLARENDON (1800–1870)

An English Statesman and Diplomatist

BI IQ 120 BII IQ 125

I. *Family standing.* Villiers' ancestors were men of high political standing. His paternal grandfather served with distinction as English Minister in Germany and was made first Earl of Clarendon. The father "does not appear to have displayed any commanding or endearing qualities." He held various civil service appointments. The mother, "a woman of great energy, admirable good sense, and high feeling" was the only daughter of the first Lord Boringdon and a descendant of Cromwell.

II. *Development to age 17.*

1. Interests. Letters written from college (Villiers entered at 16) indicate their writer's interest in horses, dogs, and late dinners; they contain also vivid discussions of current events. The young student had a distaste for logic and an incapacity for mathematics, but a strong turn for languages.

2. Education. Nothing is known of Villiers' school days except that he received private instruction from the masters of Christ's Hospital School. At 16 he entered St. John's College, Cambridge, where, by his father's arrangement, he prepared for lectures by reading with a private tutor.

3. School standing and progress. (See II 1.)

4. Friends and associates. Villiers was much attached to his beloved sister Theresa and during his college years carried on a voluminous correspondence with her.

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. "At the age of nine months he cut his first tooth."

BI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* In accordance with an ancient university privilege awarded to descendants of royalty and members of the higher aristocracy, Villiers (aged 20) was admitted to the degree of M.A. without the preliminary B.A. Through family influence he became attached a little later to the embassy of Sir Charles Bagot at St. Petersburg. At 23, and through the same influence, he was given a seat on the Board of Customs, where he rapidly attained popularity.

BII IQ 125 (Rel. coeff. of data, .20)

REFERENCE

Maxwell, Sir Herbert, *Life and Letters of George William Frederick, Fourth Earl of Clarendon,* London, Arnold, 1913. (Two vols.)

LUDWIG HOLBERG (1684–1754)

The Father of Danish Drama and the Greatest Name in Danish Literature

BI IQ 120 BII IQ 135

I. *Family standing.* Holberg's father was a first lieutenant who had risen from the ranks, an advance by no means easy or usual in his day. The mother, a woman of keen intelligence, was the granddaughter of a Bishop.

II. *Development to age 17.*

1. Interests. (See II 2.)
2. Education. After the death of his parents Ludwig was taken into the home of an uncle, who sent him, at the age of 10, to a Latin school in preparation for the profession of arms. His education was interrupted soon after, when he was adopted by a cousin, but later resumed because of his own keen desire. Again with his uncle, the boy continued in attendance at the Latin school until he was 18.
3. School standing and progress. (No record.)
4. Friends and associates. (No record.)
5. Reading. (No record.)
6. Production and achievement. (No record.)
7. Evidences of precocity. (See II 2.)

BI IQ 120 (Rel. coeff. of data, .20)

III. *Development from 17 to 26.* Holberg entered the University of Copenhagen at 18, interrupted his studies for a short period of tutoring, and then, returning, received his university degree at the age of 20. He worked hard at French, English, and Italian, and obtained honors in theology, but fund scholastic philosophy distasteful. A period of travel and tutoring followed. In the course of his journeys he came to Oxford, where the great libraries first aroused in

him the wish to be an author, and to Halle, where he met the German philosopher Thomasius, whose influence is noticeable in his early work. At 25 the youth returned to Copenhagen where he remained four years holding a teaching position in Borch's College.

BII IQ 135 (Rel. coeff. of data, .43)

REFERENCE

Brandes, Georg, "Ludwig Holberg" (in his *Mennschen und Werke*, 1900).

ROBERT E. LEE (1807–1870)

An American General

BI IQ 130 BII IQ 130

I. *Family standing.* Both of Lee's parents belonged to colonial families of high standing. The father, a member of an ancient family of Norman descent and at one time governor of Virginia, is said to have been "a more impetuous spirit than his son." The mother, who was for many years an invalid, taught Robert through her own example an important lesson in self-denial, self-control, and economy.

II. *Development to age 17.*

1. Interests. Horses were always a delight to Robert, and as a boy he followed the hunt for hours without fatigue.

2. Education. In order that the children might be educated the family moved to Alexandria, and Lee's first attendance at school was at the academy of that city.

3. School standing and progress. At school Robert was attentive, diligent, methodical, and correct in deportment.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. After the death of his father, which occurred when he was 11, the boy served as housekeeper and nurse for his invalid mother, riding out with her in the carriage, and doing the marketing for the family.

7. Evidences of precocity. Both of his elder brothers were very clever, and "possibly overshadowed Robert," but the striking qualities of his character were early observable. Before he was 11 his father wrote of him that he "was always good." At the age of 11, when his father died, he was "old beyond his years, and of a thoughtfulness, a sense of filial obligation and a warm affection for his parents that aided him to accept responsibilities of which few boys of his age would have been capable." As a lad of 15 or 16 he was considered by relatives a "youth of great promise." (See also II 6.)

BI IQ 130 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* At 17 and 18 Lee was an "exemplary student" at Mr. Hallowell's school, preparatory to entering West Point; his specialty was "finishing up." At West Point (aged 18 to 22) Lee received not one demerit mark, and graduated second in a

class of 46; immediately afterward he received an appointment as a second lieutenant of engineers in the seacoast defense. His marriage at 24 was the culmination of a romance which dated from his cadet days.

BII IQ 130 (Rel. coeff. of data, .53)

REFERENCES

Bradford, Gamaliel Jr., *Lee, the American,* Boston, Houghton, 1912.
Bruce, Philip Alexander, *Robert E. Lee,* Philadelphia, Jacobs, 1907.
Long, Armestead Lindsay, *Memoirs of Robert E. Lee,* New York, Stoddard, 1887.
Page, Thomas Nelson, *Robert E. Lee, Man and Soldier,* New York, Scribner, 1911.
Pollard, Edward Albert, *Lee and His Lieutenants,* New York, Treat, 1867.
Willing, Wildurr, "Robert Edward Lee" (in *Professional Memoirs*—Corps of Engineers, U.S. Army, Vol. IX, No. 46, pp. 361–76, Washington, 1917.)

DAVID LIVINGSTONE (1813–1873)

A Celebrated African Explorer and Missionary

BI IQ 135 BII IQ 140

I. *Family standing.* Among the paternal ancestors of the Livingstone family there was said to have been for six generations "not a dishonest man," nor ever a Livingstone who "was a donkey." The father served an apprenticeship to a tailor and married the tailor's daughter, but eventually became a small tea-dealer. He served for twenty years as deacon in the Independent Church. The mother, "a delicate woman with a flow of good spirits, did her best to make two ends meet." The Livingstone home was marked by "honesty, thrift, self-restraint, love of books, and the fear of God."

II. *Development to age 17.*

1. Interests. Livingstone's interest in study was intense. (See II 3.) His reading apparently stimulated him to scour the countryside in holidays, "collecting simples" mentioned in Culpeper's *Herbal;* before he was 10 he had begun to collect flowers and shells, and he liked sports, especially swimming and fishing.

2. Education. While employed in a cotton factory Livingstone (aged 10 or more) studied Latin at the factory evening school.

3. School standing and progress. Even at the factory, where the work day lasted from 6 A.M. to 8 P.M., he would study while he worked, placing his book on the spinning jenny in front of him; and at home he would continue reading until midnight if his mother did not interfere.

4. Friends and associates. (No record.)

5. Reading. During the factory period (aged 10 to 19) Livingstone read everything he could get hold of except novels, which were banned by his father. He bought Ruddiman's *Rudiments of Latin* out of his first week's wages. He learned to know Virgil and Horace well. Scientific books and books of travel were a special delight, but dry doctrinal readings were distasteful. The boy was whipped by his father for refusing to read Wilberforce's *Practical Christianity.*

He disliked all religious reading until in his later teens he found from Dick's *Philosophy of Religion* and *The Philosophy of a Future State* that religion and science were not hostile.

6. Production and achievement. Before he was 10 years old Livingstone had won twofold distinction: he had carried off the prize for repeating the whole of the 119th Psalm "with only five hitches"; and he had carved his name in the ruins of Bothwell Castle at a higher point than any other boy. It is reported that he would scrub for his mother if the public were barred from seeing him at so feminine a task. Livingstone's work in the factory as "piecer" began in his 11th year. In holidays from this occupation he collected wildflowers, carboniferous shells, and fossils; and his own observation led him to question the explanation that "when God made the rocks, he made the shells in them."

7. Evidences of precocity. At the age of 12 David began "to reflect on his state as a sinner," but he could not at that time reconcile religion and science. (See also II 3, 5, and 6.)

BI IQ 135 (Rel. coeff. of data, .43)

III. *Development from 17 to 26.* Before the age of 19 Livingstone's missionary interest was aroused by the formation of a missionary society in Blanteyre, and at this time he determined to become a medical missionary in China. Promoted in the factory at 19 from "piecing" to cotton spinning, he was soon well enough paid to permit his attendance at medical and Greek classes in the winter and divinity lectures in the summer. At 22 he attended also an evening class in chemistry to which he walked eight miles after the day's work. At 25 he was accepted for service by the London Missionary Society, a nonsectarian organization, and was sent for three months probationary training to a clerical tutor.

BII IQ 140 (Rel. coeff. of data, .43)

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HUGH MILLER (1802–1856)

Scottish Geologist and Writer

BI IQ 135 BII IQ 130

I. *Family standing.* Miller's father, descendent from a long line of seafaring Scandinavians, had first put to sea at 7 or 8 years of age and at 30 owned his own sloop. He was the sturdiest among five hundred ablebodied seamen, and was possessed of humor and "a soft and genial nature." The mother, simple, confiding, and affectionate, was much younger than her husband.

II. *Development to age 17.*

1. Interests. During his school days Hugh cared little for boyish amusements; he preferred to spend his time wandering over pebble beds learning to distinguish their various components, and so fond was he of this pastime that he played truant from school to indulge in it. He learned from an uncle to observe fish and sea animals. Alone in play he carried out mock military tactics on the sand with different-colored shells for the various troops. During school vacations he was the leader of a gang of boys that enjoyed exploring caves, living in wild places, and performing such pranks as apple-stealing.

2. Education. At the age of 4 or 5 Hugh learned to read at a dame's school. Later, and until he was 14 years old, he attended the grammar school of the parish of Cromarty; from 14 to 16, he was enrolled in a subscription school.

3. School standing and progress. Under the guidance of an old dame, Hugh spelled his way through the Shorter Catechism, the Proverbs, and the New Testament. At the parish grammar school, and on recommendation of his master, he was transferred from the English to the Latin form because he always substituted a synonym for a word missed in any of his English tasks. In "rudiments" he was usually behind his schoolfellows, "who were by no means bright," because he found the formal studies dull; but he excelled in translation because he could remember word for word the translation which the master gave when he assigned the lesson. At 16, having quarreled with the master over the spelling of a word, he left school never to return.

4. Friends and associates. Only one friend, a boy younger than himself, would join Hugh in his earliest natural history excursions; but later "an adventurous gang" followed the young naturalist and recognized him as their leader.

5. Reading. Hugh learned at the dame's school that "the art of reading" was "the art of finding stories in books." He spent out-of-school hours reading Bible stories; he collected a library of such books as *Jack the Giant Killer, Sinbad the Sailor, Aladdin.* From his 6th to his 11th year his reading included: Pope's Translation of the *Odyssey* and the *Iliad, Pilgrim's Progress, Robinson Crusoe, Gulliver's Travels,* Ambrose on *Angels,* a rare copy of *The Miracles of Nature and Art,* and accounts of the voyages of Anson, Drake, Raleigh, Dampier, and Captain Woods Rogers. At 10 years of age his patriotism was stirred by Blind Harry's *Wallace.* Between the ages of 6 and 16 the boy used to read in school for pleasure Dryden's *Virgil* and *Ovid.* An old book collector allowed the boy to read his volumes of the British essayists from Addison to Mackenzie, books of travel, and translations from the German of Lavater, Zimmermann, and Klopstock. Some time during his early teens, Hugh began to read theological discussions.

6. Production and achievement. When Hugh was not more than 10 years of age, his schoolmaster commended the *sense* of a "Poem on Care" which he found in the boy's copy book, although he criticized

the spelling, grammar, and punctuation. During his early grammar school years the boy (aged 6 to 12) used to relate to his schoolmates all the stories he had read, in addition to new ones of his own invention, of warriors, voyagers, and dwellers on desolate islands. Before he left the grammar school he had made his first studies of earth and nature: it is reported that he discovered garnets on the shore by noting their resemblance to his mother's brooch; that he learned by observation to understand some of the simpler instincts of insects; and that he discovered in an old cave some bones of animals from another age. He also constructed a miniature boat after the plan of a print he had seen in a book. At 10 or 12 he wrote in verse an account of his experience when trapped in a sea cave, winning praise from the townsfolk for his production. A little later he was filling his copy books with verses and original prose. He is said to have edited a little paper, the *Village Observer,* during this period. On long tours with his cousin about the countryside he would tell stories, "ten, fifteen, or thirty miles long," according to the length of the journey. At the age of 16 he constructed an ingenious path to an otherwise inaccessible rock, winning the esteem of an old soldier of Wellington's army by his device.

7. Evidences of precocity. At or before the age of 5, Hugh had already acquired a knowledge of letters by studying trade signs where various articles were pictured and named.

BI IQ 135 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At 17, resisting the offers of two uncles who volunteered to support him if he would go to college, Miller apprenticed himself for three years to a mason, the husband of his aunt. During the period of his apprenticeship he collected geological specimens and in the evenings and on long holidays studied and recorded his philosophic and poetic musings. From the age of 20 to 23 he was a journeyman mason, and from 22 to 23 a stonecutter, keeping up in the meantime both his reading and his writing. Poems written during this period were later published.

BII IQ 130 (Rel. coeff. of data, .53)

REFERENCE

Miller, Hugh, *My Schools and Schoolmasters,* Edinburgh, Nimmo, 1896.

LÉON GAMBETTA (1838–1882)

A French Statesman

BI IQ 140 BII IQ 140

I. *Family standing.* Gambetta's paternal ancestors had followed the sea. Although Léon's father, a man of ready tongue, was "respected for his honesty and integrity, he did not strike his neighbors as either very intelligent or very prudent." The mother, daughter of a chemist, is said to have had a charming and affectionate disposition.

II. *Development to age 17.*

1. Interests. At the age of 12 Léon had decided to become a sailor; he met his father's objection to this plan by saying: "We die only when we have to; after all, one may escape the greatest dangers only to perish from some apparently trifling cause." The first demonstration of the boy's staunch republicanism occurred when, at the age of 11, he joined in burning Louis Napoleon in effigy, an exploit for which he was nearly expelled from school.

2. Education. At 4 years of age Gambetta first attended school and there he learned to read. The years from 9 to 14 were spent attending the seminary of Montfauçon, the succeeding four years at the Lycée of Cahors.

3. School standing and progress. The boy's recitations, improvisations, and harangues to his schoolfellows at the seminary promised well for the future politician. His letters were those of an affectionate child but a mediocre scholar. However, his first schoolmaster said later that "at 10 years of age he was more intelligent than most boys of that age; so he was able, though giving less time to his studies, to do more than his schoolfellows. He excelled in history, Latin, and composition." The same master also referred to his pupil's "keen, quick, and observant mind." Although little Gambetta was careless of his appearance, and of his exercises, which were often dirty and untidy, nevertheless he won in the eighth form (at the age of 9 or 10) a first prize for reading and a mention for history. Improving in the seventh form (at 10 or 11) he won prizes in history, geography, and reading, and the highest mention for Latin composition, history, geography, and writing. In his 12th year an accident which occasioned the loss of an eye was the cause of a delay in his school progress; but at the age of 12 he began to rank first or second in Latin in a class of 26; and at 14 he received first prizes in ancient history and Latin version, and honorable mention for Greek and Latin themes, grammar, and geography. The head master of the Lycée reported when Gambetta was 15: "He has a great deal of aptitude; he is a good boy, but too thoughtless. He does not make as much progress as he ought to." At 16 or 17 he was told by his tutor that he had exceptional talents, particularly for oratory.

4. Friends and associates. (No record.)

5. Reading. (No record.)

6. Production and achievement. (No record.)

7. Evidences of precocity. A note written by Gambetta, at the age of 10, to his father concludes with the Republican cry, "Long live Cavagnac! Down with Bonaparte!" The young enthusiast early expressed the opinion that Napoleon was "as stupid as an ostrich." (See also II 1.)

BI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* After finishing his college course, in which he had done good work in the classical languages, history, and cosmography, and had won several prizes, Gambetta, at 18,

traveled for a time with his father in Italy, and then began the study of law in Paris. During the period of study he contributed articles to a Liberal journal. At 22 he passed his law examinations brilliantly, and in the following year was practicing law with noteworthy success. At 25 he was appointed a member of the Republican committee to draw up the list of legislative candidates.

BII IQ 140 (Rel. coeff. of data, .60)

REFERENCES

Deschanel, Paul Eugene Louis, *Gambetta*, London, Heinemann, 1920.
Gheusi, P. B., *Life and Letters of Gambetta* (Tr. Montagu), London, Unwin, 1910.

NATHANIEL HAWTHORNE (1804–1864)

An American Novelist

BI IQ 140 BII IQ 135

I. *Family standing.* Hawthorne was descended from English colonial stock. His father, a sea captain, was a silent, reserved, stern, melancholy man who carried his books to sea. He was fond of children. The mother was beautiful, and ascetic in the human rather than in the religious way. She is said to have had "fine traits of intellect and character."

II. *Development to age 17.*

1. Interests. Hawthorne wrote: "One of the peculiarities of my boyhood was a grievous disinclination to go to school. . . . . " As a very young child, Nathaniel had a strong desire to follow his father to sea. A little later his tastes were for the most part of a quieter sort. He was extremely fond of animals, and during a prolonged period of lameness he amused himself by knitting a pair of socks for the household cat and by constructing houses of books for her. Still, he was also a good deal of a sportsman as to fishing and hunting, and when the family moved to Maine he "ran quite wild," learning in the Maine woods his "cursed habit of solitude." In winter he would skate alone until midnight.

At 16 the youth suffered some indecision as to going to college; but finally, because of his thought of becoming an author, he became reconciled to the idea.

2. Education. Hawthorne went to school "half as much as other boys, partly owing to delicate health, and partly because, much of the time, there were no schools within reach." He carried on his primary studies with a tutor, and also attended dancing school. From 13 to 15 he had irregular schooling with "a somewhat eccentric graduate of Harvard." At 15 he attended school in Salem to prepare for college; and at 16 he studied with a lawyer.

3. School standing and progress. No record except of his dislike for school. (See II 1.)

4. Friends and associates. None of his associates are mentioned other than relatives, including especially his sister. With her he carried on an intimate correspondence when he was absent from home.

5. Reading. When he was 6 years old Hawthorne's favorite book was Bunyan's *Pilgrim's Progress,* which he would read by the hour without once speaking. During his period of lameness (aged 9 to 12) he would read all day long, "especially Shakespeare, *Pilgrim's Progress,* and any poetry within reach. He also made himself familiar with Spenser's *Faerie Queene,* Froissart's *Chronicles,* and Clarendon's *History of the Rebellion,* Milton, Pope's *Iliad,* and the *Spectator.* Stearns comments that it is somewhat exceptional for a child of 10 to enjoy the *Faerie Queene.* Hawthorne was the exceptional child, and this book was the first that he bought with his own money. At 15 he was reading *Waverley* and other romances; at 16 he had read all of Scott's novels then published except *The Abbott.*

6. Production and achievement. During the years of his lameness, Nathaniel sometimes invented extemporaneous stories, and these invariably commenced with a voyage to some foreign country. A letter to his uncle is preserved, written at the age of 9, in which he discusses in a childlike but intelligent fashion his lameness and the prospects for his recovery. At 12½ he composed a poem; and this was followed, before the age of 17, by a number of other literary productions. He is said also to have kept a diary in his early teens. At 16 he earned some money by writing in the office of an uncle. At the same age he put out five successive issues of the *Spectator,* a weekly journal, printed with pen on small note paper; his contributions show a dry humor and mastery of the art of presenting "true fiction."

7. Evidences of precocity. At 5 Nathaniel was a "vivacious, golden-haired boy," running and dancing at play. "When he could scarcely speak plainly, he would go about the house repeating with vehement emphasis certain stagey lines from Shakespeare's *Richard III,* which he had overheard from older persons about him." In boyhood "he already displayed a tendency toward dry humor." It is related how he gave as an excuse for frequent fights with John Knights that "John Knights is a boy with a very quarrelsome disposition." (See also II 5 and 6.)

BI IQ 140 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Hawthorne entered Bowdoin College at 17, and during the next four years he did commendable work in Latin and English composition, although he was slow in mathematics and metaphysics. In spite of the fact that he was, according to his later admission, "an idle student, negligent of college rules," "he assimilated the knowledge that he cared for with great ease." While at college he determined to become an author, and he wrote several tales (unpublished) before *Fanshawe* appeared. The latter was published by the author, then in his 25th year, at his own expense.

BII IQ 135 (Rel. coeff. of data, .60)

REFERENCES

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HARRIET MARTINEAU (1802–1876)

An English Novelist and Writer

BI IQ 140 BII IQ 140

I. *Family standing.* Harriet Martineau's great-great-grandfather was a Huguenot refugee, a surgeon. Her father, a simple upright, self-denying, and affectionate man, was the youngest son of a large family. Endowed with natural shrewdness, he overcame the drawbacks of an inadequate education and became a successful manufacturer and merchant. Her mother, daughter of a sugar-refiner, did not understand her daughter in youth, but later encouraged her literary ambitions.

II. *Development to age 17.*

1. Interests. As a child Harriet was very unhappy, living under an unaccountable terror of both persons and things. Her mental instability showed itself in exhibitions of excessive shyness, in a plan (formulated at the age of 7) to commit suicide in order to reach heaven at once, and in an outburst of religious fanaticism which occurred in her 17th year under the influence of a Unitarian minister. Certain religious interests were probably natural developments in her surroundings. At an early age she formed the habit of writing out on Sunday evening the sermon heard earlier in the day. When quite a small child, the Bible and especially the New Testament attracted her strongly. At 7 she memorized the whole of *Paradise Lost* in a few months. Her interest in reading was not limited to religious works, and at 15 she had become a sort of walking concordance of Shakespeare as well as of Milton.

2. Education. Harriet sometimes asked strangers for a "maxim," which, when granted, she wrote out even when her small fingers could scarcely join the letters. At the age of 5 she was taught to sew by a nurse who thought her "dull, unobservant, slow, and awkward." Shyness and fear made the child often appear a very dull pupil in music and other subjects, but she could execute all her musical tasks if she thought no one was listening. Until 11 years of age she was taught at home by the older brothers and a sister according to a course of study which included Latin, French, writing, and arithmetic. Later she studied Cicero, Virgil, Horace, and French gram-

mar, in the school of Mr. Perry, Unitarian minister. From 13 to 15 she had lessons at home in Latin, French, and music. In her 16th year she went to live with her aunt in Bristol, and there engaged in private study of analytical books on logic and rhetoric, history, and poetry.

3. School standing and progress. Harriet learned by heart easily, but she was "indolent in body" and "lazy about using the dictionary." At Mr. Perry's school she got into the habit of thinking in Latin, and she attained considerable skill in versification. The master said he never had a fault to find with her.

4. Friends and associates. No specific record. Deafness which had developed by the time she was 12, general ill-health, fear of people, which continued until she was nearly 16, and shyness, were all hindrances to normal social relationships.

5. Reading. At the age of 7 Harriet kept *Paradise Lost* constantly with her. She studied the New Testament carefully. At home she read aloud a good deal of history, biography, and critical literature.

6. Production and achievement. (See II 1.)

7. Evidences of precocity. (See II 1.)

BI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* Harriet continued her studies after returning home from Bristol, adding philosophy to the list of subjects included in the course. She translated Petrarch into English sonnets of the same form, and made a creditable rendering from Tacitus. She thought out for herself the Necessarian solution of the foreknowledge of God and afterward read all she could find on the subject. At 19 her *Female Writers on Practical Divinity* appeared in the Unitarian *Monthly Repository,* and two years later her *Devotional Exercises* were published. She wrote some poetry and a few tales illustrating social and economic conditions. *Principle and Practice* and *My Servant Rachel* belong to her 25th year. She was twice in love and the second time became engaged, but before the marriage her lover had died insane.

BII IQ 140 (Rel. coeff. of data, .60)

REFERENCE

Martineau, Harriet, *Autobiography,* Boston, Osgood, 1877. Two vols.

HANS CHRISTIAN OERSTED (1777–1851)

A Danish Physicist, Discoverer of Electromagnetism

BI IQ 140 BII IQ 160

I. *Family standing.* Oersted's father was a village apothecary. No record has been found of the mother or her family.

II. *Development to age 17.*

1. Interests. At the age of 12, Oersted determined to devote himself to the study of theology; but his interest was not limited to this subject alone, for he had a decided taste for poetry and a bent for scientific investigation, especially in the field of pharmacology.

2. Education. Between his 8th and 13th year Oersted was sent by his father regularly each day to a wigmaker's, where he was taught by the wife to read properly in Danish, while the wigmaker instructed him in German and arithmetic. The boy made rapid progress. Afterward in his spare time Oersted received instruction in Greek and Latin from a student.

3. School standing and progress. Oersted was largely self-taught; and he was successful in acquiring the elements in which it was said that he "was not slow." An old arithmetic which he found, he studied carefully, and at the age of 12 he began to learn French.

4. Friends and associates. Hans Christian and his younger brother, Anders Sandoe Oersted, later distinguished as philosopher and jurist, were close associates both in childhood and later.

5. Reading. (No further record.)

6. Production and achievement. Beginning at the age of 12 Oersted labored zealously as apprentice in the paternal pharmaceutical laboratory. He was deeply interested in foreign languages and possessed considerable ability in their acquisition; he endeavored to learn French by himself; and during the period from his 13th to his 18th year he translated several odes of Horace and a part of the *Henriade* into Danish.

7. Evidences of precocity. Hans Christian often embarrassed those who sought to put his sagacity to test, so that the gossips of the vicinity used to say of him, "He will not live; he has too much smartness." The little lad was able to translate the German Bible into Danish, word for word. He possessed an extraordinary memory, early remarked by his associates.

BI IQ 140 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* At the age of 17, Oersted passed the final examinations of the academy with much honor and entered the university. At 19 he won a prize for his discussion of a literary question, and in the next year, at his university examinations, he astonished his judges by the extent of his knowledge. One of them said to another: "What a candidate you have brought us; he knows more than all of us put together." At 21 Oersted obtained a new scholastic prize, and at 22 he obtained the university degree of Doctor of Philosophy upon presentation of a thesis in metaphysics.

Before he was 23, Oersted had published several short dissertations on subjects in literature, poetry, and philosophy. He was left (at 23) to direct Professor Manthey's pharmacy, and also, on one occasion, to fill a professor's place in the Academy of Surgery. During the university period he made important investigations with the recently discovered electric pile, and, at 24, pronounced his first "law," this being the first step in the career which later brought him eminence. He then started out for an extensive trip through Germany and France, where he was cordially received by leading philosophers and scientists of the day.

BII IQ 160 (Rel. coeff. of data, .60)

REFERENCE

Elie de Beaumont, Leonce, *Memoirs of Oersted* (Tr. Alexander), Washington, Smithsonian Institution, 1869.

CHARLES SUMNER (1811–1874)

An American Statesman

BI IQ 140 BII IQ 145

I. *Family standing.* Sumner's father, a Harvard graduate of colonial ancestry, was a well-read and painstaking lawyer, an extremely conscientious man, but for some reason not successful in his profession. However, he held several responsible government positions at different times. The mother, although she had received no more than a common school education, was endowed with good sense and native understanding such as always to insure her "the respect of the best people." Her forebears were farming people "marked by good sense and steady habits."

II. *Development to age 17.*

1. Interests. As a schoolboy Charles was given to plying traveled persons with many questions. His interests were intellectual rather than social or athletic. He cared little for sports and games, and he soon ceased to attend the dancing school to which his parents sent him. Swimming was the sport he enjoyed most. He always relished fun in a quiet way.

2. Education. Sumner commenced his schooling by attendance (at about the age of 6) at a private infant school kept by his maternal aunt; at 10 he entered a private writing school where he spent a year learning the elements of the common English branches. Before he was quite 11, he was admitted with his younger brother to the Boston Latin School, an institution of high reputation with a five-year curriculum including Latin, Greek, mythology, arithmetic, and reading. Sumner was ready to enter Harvard at 15.

3. School standing and progress. At the age of 10, little Charles received a merit card. His interest was not limited to the school subjects; and although his father had not intended him to study the classics, Sumner on his own initiative bought from an older boy a *Latin Grammar* and *Liber Primus,* studied them privately, and soon surprised his father by his ability to recite them. Although he was not always attentive to his studies at school, the other boys "felt the superiority of his mind and education" because he knew so much outside of the prescribed curriculum; the teacher could not catch him on a point in geography, although this was not a regular school subject. At the closing exercises of the Latin school Sumner (aged 15) took part with another youth in a debate entitled "A Discussion on the Comparative Merits of the Present Age and the Age of Chivalry"; and he was one of six scholars to be awarded a Franklin medal.

4. Friends and associates. No specific record has been found of Sumner's early associates other than members of the family. In

his sophomore year at college began his friendship with John W. Browne, who, in his opinion, "gave in college the largest promise of future eminence." The chum of his freshman year was Jonathan Stearns, who took high rank in college and later became a clergyman.

5. Reading. Sumner was always fond of reading; he enjoyed historical works especially, reading them with earnest attention. At 14 he was reading Gibbon and copying extracts which pleased him.

6. Production and achievement. At the age of 13 Sumner won a third prize for a translation from Ovid and a second prize for a translation from Sallust. At 14, he wrote a compendium of English history from Caesar's conquest to 1801, "events succinctly narrated in good English," with their dates, a work that filled a manuscript book of 86 pages. Pierce believes that the elder Sumner may have suggested undertaking this work. Charles engaged in the usual Latin verse writing, and some of his efforts indicate considerable skill. At 15, he won second prizes for a Latin hexameter poem and for an English theme.

7. Evidences of precocity. He was remembered from his school days as "large for his age, amiable and quiet, and maturer than most of the other scholars."

BI IQ 140 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* At college Sumner was one of the best classical scholars; he excelled in translations and forensics, but he failed entirely in mathematics. At the age of 18 he published in a newspaper an essay on English universities; and between 19 and 22 he won three prizes for essays on social and economic subjects. A year after graduating from college he entered the Harvard Law School, remaining there for two years. Admitted to the bar at 23, he immediately engaged in law practice. By the age of 26 he had acted as instructor in the Harvard Law School; he had also contributed to legal journals and edited legal reports.

BII IQ 145 (Rel. coeff. of data, .60)

REFERENCES

Pierce, Edward Lillie, *Memoir and Letters of Charles Sumner*, Boston, Roberts, 1893.

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GEORGE ELIOT (MARY ANN EVANS) (1819–1880)

A Celebrated English Novelist

BI IQ 150 BII IQ 150

I. *Family standing.* Mary Ann Evans' father, by training a carpenter, became a forester, land agent, and surveyor to five estates. He possessed great vigor both of mind and body and a character of the highest integrity; he was a good churchman and a staunch Tory. The mother, a shrewd and practical woman of a rather better social

position than her husband, was endowed with a warm heart and an unusual amount of natural force.

II. *Development to age 17.*

1. Interests. Mary Ann was so devoted to her brother (three years her senior) that she insisted on following him in every childish undertaking. But she liked best to live in a world of her own creation, imagining scenes in which she was the chief actor. Books early became a passion, and her appetite for reading was insatiable. Her enthusiasm and sentiment for music were strongly marked, and her music-master soon confessed that he had no more to teach her; at school, she was frequently called upon to play for visitors.

2. Education. Mary Ann was sent to school unusually early because of her mother's poor health; she attended a school near by a part of each day for two years. From the age of 5 until she was 15 she attended a series of boarding schools. At the first the little girl, far from home, was subject to night fears; she is said to have been otherwise quite happy. At the second boarding school her religious sensibility was developed by acquaintance with the governess, who became her devoted friend. At the third her English style was trained, and she gained much in precision. When barely 16 she was taken out of school because of her mother's fatal illness.

3. School standing and progress. Mary Ann had some difficulty in learning to read, not because she was slow but because she liked to play so much better. At her first boarding school she was reserved and serious beyond her years, and, observant, she developed the habit of sitting in corners watching her elders. She early showed easy mastery of the usual school learning. At her last boarding school she was recognized as one of the most promising pupils, being greatly in advance of her fellows in her knowledge of French and in English composition. She was a leader of prayer-meetings amongst the girls and of charitable enterprises.

4. Friends and associates. Miss Lewis, the principal governess at one of her schools and an ardent Evangelical churchwoman, was for many years her one intimate friend and correspondent. Mary Ann did not associate freely with children of her own age.

5. Reading. The first book she read was *The Linnet's Life,* and when still very young she took a passionate delight in Aesop's *Fables.* By the time she was 7 or 8 she read every volume available—among others the works of Scott, who, from her first acquaintance with *Waverley,* became a great favorite. Other favorites were *The History of the Devil* by Daniel Defoe, *Pilgrim's Progress,* and *Rasselas.* In her 13th year she came upon Bulwer's *Devereaux* and was "considerably shaken by the impression that religion was not requisite to moral excellence."

6. Production and achievement. When no more than 8 years of age Mary Ann wrote out from memory the story of *Waverley.* Before she was 12 she and her brother used to act charades for the family audience, and at this time Mary Ann began to be regarded as

a child beyond the ordinary. In her 14th year she received a school prize, a copy of Pascal.

7. Evidences of precocity. No additional record. (See II 6.)

BI IQ 150 (Rel. coeff. of data, .60)

III. *Development from 17 to 26.* After her sister's marriage Mary Ann became an exemplary housewife for her father. She took regular lessons from Mr. Bezzi in music, French, Italian, and German, besides doing a large amount of miscellaneous reading, especially in the field of religion. After moving from the farm to a house near Coventry she found in two new friends and their associates an intellectual stimulus hitherto lacking in her life. Mr. Bray, a wealthy manufacturer, and his wife were believers in phrenology, interested in philosophical speculations, and in problems of religion and theology. At the Brays' Miss Evans met Emerson, Froude, Robert Owens, George Combe, and other men of mark. In this stimulating society she soon changed her attitude toward the old religious dogmas and determined, in order to be quite consistent, to give up going to church. At this time she took lessons in Greek, and studied Hebrew by herself. At 24 she began a translation of Strauss's *Life of Jesus,* which was published three years later.

BII IQ 150 (Rel. coeff. of data, .75)

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CHARLOTTE BRONTË (1816–1855)

An English Novelist

BI IQ 155 BII IQ 155

I. *Family standing.* Charlotte's father was an Irishman of peasant stock who, after having been a weaver and schoolmaster in Ireland, put himself through Cambridge and became a clergyman of the Church of England. Some volumes of his verse and a few open letters were published. This clever man was a victim of hypochondria and his character was marked equally by vehement prejudice and keen intelligence. His wife, Maria Branwell, came of a non-conformist Cornish family of good descent. She was intelligent, read with discrimination, and wrote an essay on *The Advantage of Poverty in Religious Concerns* [!].

II. *Development to age 17.*

1. Interests. In early years Charlotte manifested keen interest in politics. The Duke of Wellington, at that time prime minister and leader of the Tory party, was long her especial idol. She was greatly interested in art, and developed some talent in drawing, although in the main her interests were studious and literary.

2. Education. The Reverend Mr. Brontë, probably influenced by Rousseau's theories of education, sought to make his children "hardy and indifferent to the pleasures of food and dress." A regular lesson schedule was followed under the father's instruction, but the children were in the habit of picking up an immense amount of miscellaneous information for themselves. At the age of 8 Charlotte was sent to a school for clergymen's daughters; from 9 to 13 she was at home; at 14 she was sent to Roe Head School, where she remained a year and a half, after which she again returned home.

3. School standing and progress. At her first school Charlotte was "a general favorite . . . . never under disgrace, however slight." At Roe Head School, although handicapped at her entrance by the irregularity of her earlier studies, she quickly rose to the first place in the first class. She is described by a school friend as having been "head of the school in all intellectual pursuits." At the close of the first half-year Charlotte won three prizes; and the silver medal "for fulfillment of duties" she retained to the end of her school course. Her only school fine was for "late talk."

4. Friends and associates. United to her sisters by common intellectual interests and ambitions, Charlotte found in them her closest friends. At Roe Head School she formed two lifelong friendships with two schoolmates, Ellen Nussey and Mary Taylor. The latter seems to have been an unusually intelligent young woman.

5. Reading. All the Brontës read omnivorously, if irregularly, from earliest childhood. *The Imitation of Christ* and Scott's *Tales of a Grandfather* are two books specifically mentioned as having been read by Charlotte before she was 15. As evidence of the extent of her reading, the following may be quoted: "Soon after leaving school [at 16] she admitted reading something of Cobbett's. 'She did not like him,' she said, 'but all was fish that came to her net.' "

6. Production and achievement. All four of the little Brontës commenced to write at a very early age. "The History of the Year 1829," a detailed account of family and intellectual activities, was written by Charlotte before she was 13. Her "Catalogue of My Books, with the Period of Their Completion, up to August 3, 1830," includes 22 volumes, all written within a period of 15 months; each volume contains from 60 to 100 pages, and the series includes adventure tales, books of rhymes, a drama (in two volumes), six numbers of a "magazine," etc. "An Adventure in Ireland," written when the author was 13, has been considered to exhibit distinct foreshadowings of Charlotte's peculiar talent. A "list of painters whose works I wish to see" indicates (at 13) keen interest in art and a wide and unusual acquaintance with its history on the part of one who had no first-hand acquaintance with pictures. A poem, "The Wounded Stags," written before she was 17 (exact date unknown), certainly shows correct versification and a high degree of imaginative sensitiveness. While at Roe Head School Charlotte enjoyed an ability to "frighten her friends" by her imaginative stories.

7. Evidences of precocity. "As soon as they could read and write," Charlotte and her brother and sisters invented and acted

little plays of their own. The following incident is reported: At about 7, being asked by her father to name "the best book in the world," Charlotte answered, "The Bible." "And . . . . the next best?" "The Book of Nature." After her entrance at her first school, she was described thus in the official register: "Writes indifferently. Ciphers a little, and works neatly. Knows nothing of grammar, geography, history, or accomplishments. Altogether of her age, but knows nothing systematically." (But see II 4, 6, and 7.)

BI IQ 155 (Rel. coeff. of data, .82)

III. *Development from 17 to 26.* From the age of 16 Charlotte Brontë spent three years at home assisting in the education of her younger sisters and devoting her leisure hours to reading and writing. She read at this time the English classical writers, biographical works, and works on natural history. She also maintained an interest in politics.

At the age of 19 Charlotte became a teacher at Roe Head School. Here she stayed for three happy years until her health failed and she was forced to return home to recuperate. At 23 she entered upon a position as governess, and took another at 25. At 23 she declined two offers of marriage. Throughout the years her health was almost constantly poor and her salary, when she was teaching, meager.

BII IQ 155 (Rel. coeff. of data, .82)

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JOHN HENRY NEWMAN (1801–1890)

An English Theologian

BI IQ 155 BII IQ 155

I. *Family standing.* Newman's father, a banker, came from a family of landed proprietors originally of Dutch extraction, and his mother from a French Protestant family descended from Henri Fourdrinier, said to have been an admiral of France. The elder Newman, who is reported to have been "very intellectual," had also a taste for music, which he encouraged in his children. The mother "inherited the family tradition in religion."

II. *Development to age 17.*

1. Interests. (See II 5, 6, and 7.) Newman was studious, devoted to literary exercises and to books. He showed some musical talent and at the age of 10 he began to learn to play upon the violin. He was superstitious and imaginative; he used often to wish that the *Arabian Nights* were true. At 15 he is described as a dreamy boy "with a mind biased in the direction of religion"; his "conversion" occurred at this time. Although he was never, or scarcely ever, seen

taking part in any game, yet he was often chosen by the other boys as arbitrator in their disputes.

2. Education. From his 8th to his 15th year Newman attended a school at Ealing, near London, under the Reverend George Nicholas, D.C.L., of Oxford. At 9 he studied Ovid and Greek, at 10 he began verses, at 11 he got into *Diatessaron* and Homer, and at 12, Herodotus. During his school years he was taught music by a private master. He entered Trinity College, Oxford, just before the age of 16.

3. School standing and progress. Dr. Nicholas said that "no boy had run through the school, from the bottom to the top, as rapidly as John Newman." From Oxford, which the boy entered two years below the usual age, he wrote to his father, "I now see the disadvantage of going too soon to Oxford; . . . . for there are several who know more than I do in Latin and Greek, and I do not like that." In spite of his youth Newman was so proficient in mathematics that he surprised his tutor; but he had to fag hard to keep up with his friend Bowden. At 16 Newman won commendation for his Latin declamations.

4. Friends and associates. Although bored by general society, John was devoted to his mother and sisters. During his first year at college (aged 15 and 16) he formed a lasting friendship with a fellow-freshman, John William Bowden, three years his senior.

5. Reading. Newman was brought up from his earliest years to take great delight in reading the Bible. He recollected listening to the reading of the *Lay of the Last Minstrel* when he was about 8, and during his boyhood he used to read Scott's novels in the early summer mornings in bed. At 14 he read Paine's *Tracts against the Old Testament,* finding "pleasure in thinking of the objections which were contained in them." At 15 he read some of Hume's essays, Pope's *Essay on Man,* and such works as Newton's *Dissertation on the Prophecies* and Milner's *Church History,* and was "enamoured" of the Church Fathers. Under his mother's influence he read the works of the Protestant divines. He loved to read serious books aloud to the servants, expounding their meaning. As a college youth of 16 he was "very fond" of Bishop Beveridge's *Private Thoughts.*

6. Production and achievement. At 9 Newman kept a pocket diary in which we read these entries among others: "Heard for the first time the cuckoo," "Dreamed that Mary was dead," etc., etc.; and also a number of verses and moral axioms. At 11 Newman began some original compositions in prose and verse, and it is recorded that at this time he wrote "a mock drama of some kind." By 14 he was "possessed" by a passion for writing. He wrote a burlesque opera, composing tunes for the songs. He maintained two opposing controversial periodicals, the *Spy* and the *Anti-Spy;* thirty numbers of one and twenty-seven of the other appeared within six months; but with scant sympathy for his early production he wrote later, "There is not a sentence in either worth preserving." Between 14 and 15 he contributed to "The Portfolio" written by a club of senior boys nicknamed "The Spy Club," and at 15 he wrote some reflections on the subject of recreations as the beginnings of sins. At 15 or 16

"The Beholder," all of his own writing, ran through forty numbers and 160 octavo pages closely written. Of this periodical he wrote later, "It is far superior in composition to my others, but nothing worth keeping but some verses . . . . to the doctrine of which I now hold fast." At this time he made a speech before the Duke of Kent, who said, "The action was (so) good." It is reported further that he took part in school performances of Terence's plays. At 16 Newman composed an essay on fame, in which he expressed the idea that it is the name and not the person which is celebrated. He prepared the texts of some dozen sermons, puzzling at the same time over such questions as predestination and efficacious grace.

7. Evidences of precocity. In early boyhood John was a strong-willed child who "tried very hard" not to yield to his mother. A letter written by his father when the boy was 5 bids him read it to his mother and to his brother Charles to show how well he can read writing. It continues, "But you will observe that you must learn something every day, or you will no longer be called a clever boy." On his 6th birthday Newman recited Cowper's *Faithful Friend,* which he had learned by heart. He was a little later described by his sister as "a very philosophical young gentleman," and at the age of 10, "very observant and considerate." Before 15 he was most scrupulous as to facts, correcting a member of the family who spoke of Wellington (who was short of stature) as a "gigantic warrior." He was very superstitious.

BI IQ 155 (Rel. coeff. of data, .75)

III. *Development from 17 to 26.* Newman spent his leisure time at college in writing with his friend Bowden; his first poem was published. He read hard, hoping to achieve honors in his final examination, but being called up a day sooner than he had expected, he "lost his head" and failed to win the coveted success. Thereupon he gave up law and decided to enter the ministry, and so remained at Oxford tutoring private pupils. At 21 he vindicated himself by winning an Oriel fellowship. At 23 he was ordained a deacon, and preached his first sermon; at 24 or 25 he was ordained a priest. Before he was 26 he had become a public tutor of Oriel.

BII IQ 155 (Rel. coeff. of data, .75)

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ROBERT SOUTHEY (1774–1843)

An English Poet and Prose Writer

BI IQ 155 BII IQ 155

I. *Family standing.* Southey's grandfather and great-grandfather were yeoman farmers, but his father was a linen draper in Bristol,

who failed in business when his son Robert was 18. Perhaps it was characteristic of the father that in the evenings he "whiled away the hours over Felix Farley's *Bristol Journal,* his only reading." Southey's mother was of a sweet temper and happy disposition, and, although unschooled, was "able to see a fact swiftly and surely."

II. *Development to age 17.*

1. Interests. As a tiny lad Robert would beguile the hours in the garden "making friends with flowers, and insects." The delight which he early learned to take in rural sights and sounds grew up with him and continued unabated. He had little interest in the usual boyish sports, and many were the truant hours delightfully spent in reading in a friend's library.

2. Education. At the age of 3 Robert was handed over to the schoolmistress, Ma'am Powell, and at 6 was advanced to a higher school in Bristol. After a year at boarding school in Corston, he again returned to Bristol, attending from his 9th to his 13th year a school whose master "was a man of character and certain humorous originality." Thereafter he was instructed by a Bristol clergyman and by a special tutor. He then entered Westminster School, which he attended until his 19th year.

3. School standing and progress. Southey looked back with pride upon his success in spelling at Corston, but his handwriting in that school was not satisfactory to the "severe and stern" master. The credit is due to Mr. Williams (master of his fourth school) of having discovered in this favorite pupil a writer of English prose. So great was the teacher's enthusiasm over his pupil's success in writing that Southey's classmates determined to humiliate their more successful colleague. To prove his ignorance they asked him what the letters *i.e.* stand for, and he, ever ready, promptly answered, "For 'John the Evangelist.'" At Westminster, Southey collected miscellaneous facts rather than high scholarship reports.

4. Friends and associates. Young Robert spent much of his time, especially in the vacations, with his aunt, Miss Tyler, subject to the humors of "a maiden lady of whimsical, irrational, and self-indulgent temper." At her house he played with the brother of her maid (more, it is stated, from need of companionship than from congeniality), and listened to the stories of a feeble old relative. At Westminster, he made friends with C. W. Wynn, afterward secretary of war and chancellor of the Duchy of Lancaster, and with G. C. Bedford.

5. Reading. Before he was 8, Southey had read Shakespeare, Beaumont and Fletcher, translations of Tasso and Ariosto, and the *Faerie Queene.* Before he was 12, he had read Pope's *Homer,* Michle's *Lusiad,* Sydney's *Arcadia,* Goldsmith, etc. During the years at Westminster he read, among other works, Gibbon's *Decline and Fall,* Picait's *Religious Ceremonies,* which impressed his imagination strongly, and poems by Crabbe.

6. Production and achievement. Before he was 8 Robert had begun to write a play, and having completed an act and a half, said play-writing was the easiest thing in the world. When about 8,

assisted by a little friend, he set up a theater for puppets. At 9 he began to write verses—"Epics of the Trojan Brutus," "Egbert," "King Richard the III," etc. At 12 and 13 he was conscious of the intellectual progress he had derived not from books or instruction but from constantly exercising himself in English verse. Among his early literary exercises were heroic epistles, translations from Latin poetry, satires, descriptive and moral pieces, a poem of the Trojan war in dialogue, and three books of Cassibelan. At 14 he wrote an elegy on the death of his infant sister Margaretta.

7. Evidences of precocity. Robert's emotional sensitiveness made him a mother's darling. When he was 2 and perhaps before, he wept at the tragic fate of the *Children Sliding on the Ice All on a Summer's Day* or the too early death of *Billy Bringle's Pig,* and so deeply was he moved that he would beg his mother not to proceed with the sad tale. At 3 he was handed over by his beloved attendant, "Patty," to the schoolmistress, who was old and grim. He kicked lustily and cried, "Take me to Pat. I don't like ye! You've got ugly eyes!" During the two years before he was 5 he spent much of his time with his aunt, Miss Tyler. What he most enjoyed during these visits was to be dressed up and seated beside her in the evening in the best part of the theater. At the age of 7 it was he who comforted his mother as she wept at the thought of his impending departure for a distant school.

BI IQ 155 (Rel. coeff. of data, .53)

III. *Development from 17 to 26.* With three Westminster friends, Southey started a school paper, *The Flagellant,* in whose pages appeared the essay on flogging, which caused Southey's expulsion from school and prevented his entrance at Christ Church. However, he was accepted at Balliol College, and his expenses there were paid by his uncle, the Reverend Herbert Hill, Chaplain in Lisbon. Southey gained little or nothing from the university "except a liking for swimming and a knowledge of Epictetus"; and perhaps the conviction that Stoicism was "the best and noblest of systems." Within six weeks after his 19th birthday he began and finished *Joan of Arc,* an epic poem in twelve books. At 20 he began to experience difficulty in choosing a profession. In spite of his uncle's wishes, he decided he could not take orders; he tried to become a doctor, but the dissecting room repelled him; and he refused a position as reporter because the paper was opposed to the holding of individual convictions. At this time Southey met Coleridge, and together the two enthusiasts formed a scheme for a communistic settlement, Pantisocracy, in America. After his marriage the next year Southey abandoned the scheme, thereby causing a breach with Coleridge. At 20 he lectured on European history, wrote *Wat Tyler,* part of *The Fall of Robespierre,* and published his first poems. At 21 after a visit to his uncle in Lisbon he wrote *Letters from Spain and Portugal.* At 23 he made a serious but brief attempt at legal study at Gray's Inn, where he became acquainted with Charles Lamb and Rickman. He was interested at this time in making translations from the German.

During this and the next following years Southey produced more poetry than at any other time; he wrote verses for the *Morning Post,* he edited the first volume of the *Annual Anthology* and the second edition of his *Joan of Arc;* and, at 25, after he had recovered from a nervous fever brought on by overwork, he published his second volume of poems. *Modoc* was finished the same year.

BII IQ 155 (Rel. coeff. of data, .60)

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APPENDIXES

APPENDIX I

A CASE STUDY IN FULL

SCHELLING, FRIEDRICH WILHELM JOSEPH (1775–1854)

A Celebrated German Philosopher

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Cattell No. 154

Aus Schelling's Leben in Briefen. *Leben*
(Ed. by G. L. Plitt) (2 vols. References are to Vol. I.) Leipzig: Hirzel, 1869.
(A careful compilation of original sources. Begun by Schelling's son. The basis for all other studies on Schelling's early life.)

Klaiber, Julius, *Hölderlin, Hegel und Schelling, in ihren Schwäbischen Jugendjahren.* (Chapter on Schelling.) Stuttgart: Cotta, 1877.
(A pleasing and accurate sketch. Based on *Leben.*)

Fischer, Kuno, *Schelling's Leben. Werke und Lehre.* (2d ed.) Vol. VII of Fischer's *Geschichte der neuen Philosophie.* Heidelberg: Winter, 1899.
(A brilliant study, based for the earlier years on the documents of *Leben.*)

Encyclopedias.

CHRONOLOGY

Based on All Sources

Age	Date		Reference
	1775	January 27. Born at Leonberg, Würtemberg.	
Before 15	1790	First training under his father's direction.	
15–20	1790–95	Attended Tübingen Theological Seminary.	
18	1793	First publication, *Über Mythus, Historische Sagen,* etc.	
19	1794	Published *On the Possibility of a Form of Philosophy.*	
19–31	1794–1806	Period of active literary production.	
20	1795	Published *On the Ego as the Principle of Philosophy.*	

Age	Date		Reference
20–23	1795–98	Tutor to a young nobleman at Leipzig. Further philosophical papers.	
23	1798	Professor at Jena. Enthusiastically received. Associated with Fichte and Hegel. Recognized as the leader of the Romantic School.	
24	1799	Published *First Plan of a System of the Philosophy of Nature* (written in 1795).	
25	1800	*Transcendental Idealism.*	
26	1801	*Presentation of My System of Philosophy.*	
27	1802	*Bruno.*	
28	1803	Married Caroline Schlegel.	
28–33	1803–1808	Professor at Würzburg.	
29	1804	Published *Philosophy and Religion.*	
32	1807	*The Relation of Art to Nature.*	
31–66	1806–41	Occupied various official positions at Munich. (Secretary of the Academy of Arts. From 1827 professor of philosophy and later director of the Academy of Sciences.) As professor, attracted students from all parts of the world. Ennobled by the King of Bavaria.	
34	1809	Published *Human Freedom.* Death of his wife.	
37	1812	Married Pauline Götter.	
45–52	1820–27	Lectured at Stuttgart and Erlangen.	
66–71	1841–46	Lecturer at the University of Berlin (successor to Hegel). Title of Privy Councillor. Elected to membership in the Academy.	
71–79	1846–54	Retired. Resided chiefly at Berlin and often at Munich. Traveled.	
79	1854	August 20, died at Ragaz in Switzerland. Collected works (14 vols.) published 1856–61.	

ANCESTRY AND FAMILY

		Reference
Paternal and Maternal	As far as the direct and collateral ancestry can be traced, the men were all pastors, of education and local reputation, and the women pastors' wives.	*Leben* 2, 3
Father	A distinguished orientalist who became prelate at Maulbronn. A grave man, fond of quiet research and a zealous linguist. His work was frequently noticed for its good judgment and fine discrimination. He had studied Arabic, Syriac, Hebrew, and Chaldaic, and was the teacher of the distinguished scholar Schnurrer, who in his turn became the teacher of young Schelling. He published a number of articles, especially on Old Testament subjects. He was successful in training young men as scholars.	*Lip.* *Leben* 4
Mother	A woman of simple, bourgeois nature. She was small and pale. She was devoted to her children and showed great fondness for her eldest, Fritz, the philosopher, who most resembled her. He had her blue eyes; all the others had their father's brown eyes.	*Leben* 5
Wife	1. Caroline Schlegel. The divorced wife of A. W. Schlegel. One of the most intellectual women of her time, she was called the embodiment of the Romantic spirit. Married Schelling (her third husband) in 1803. She died in 1809. She played a considerable rôle in the intellectual movement of the period.	*Meyer*
	2. Pauline Götter, a close friend of Caroline, "in whom he found a faithful companion." She bore him one son.	*E. Brit.*
Only Son	Hermann, a distinguished jurist. Studied philology and law. At 20 entered the Prussian judicial service. Rapidly promoted. Became Prussian minister of state and justice. Wrote legal treatises and a translation of the *Odyssey* in verse.	*Brock.*

DEVELOPMENT TO 25

Age	Date		Reference
	1775	January 27. Born at Leonberg, Würtemberg.	*Brock.*
2	1777	The family moved to Bebenhausen, where the father was appointed professor and preacher in a theological university preparatory school. The school lay in charming surroundings in a wooded valley, some little distance from Tübingen. The boy later describes "the big house" with "five rooms that may	*Leben* 5

Age	Date		Reference
2	1777	be heated." The families of the school manager and the janitor were less well situated in the same house.	*Leben* 5
Before 8	1783	The boy began his school career in the local German school.	*Leben* 11
8	1783	He began the study of ancient languages with his father and with students of the theological seminary, as there was no Latin school in the village.	*Leben* 11
10	1785	The father planned to send Schelling to the excellent public school at Nürtingen in preparation for the general state examination. Here the boy could live at the home of his uncle, who was the principal of the school.	*Leben* 11
10.4	1785	Taken to Nürtingen by his mother. The teacher Kraz left him in the schoolroom with an exercise to see what he would do with it. Soon the boy was heard jumping about over the desks. When the teacher returned to remind Schelling of the work to be done, he found it completed in excellent form. He told the mother what a gifted son she had. On the mother's arrival at home she related the incident to her husband and reproached him for not having told her of the ability of her first-born.	*Leben* 12
10.9	1785	Half a year later little Schelling passed the first examination (one of four in successive years, prerequisite to admission to the Seminary).	*Leben* 12
		A Latin composition, a Greek composition, and five Latin distichs on art are extant. The concluding couplet of the series follows:	*Leben* 12
		"O juvenis demens, nescis secreta tacere; Crede mihi, est magnus nosse tacere labor."	*Leben* 12
		The vacation was spent at home in play with his little brother.	*Leben* 12
11.9	1786	The teacher informed the father that there was nothing more for the boy to learn in his school, and that he was advanced far beyond his classmates.	*Leben* 12
		The father was in a quandary. (The boy was two or three years too young to enter a regular preparatory school.)	*Leben* 13

Age	Date		Reference
11.9	1786	He took Fritz home and put him in his own seminary where he could at least be under parental care and guidance. But here the other boys, 17 and 18 years old, were at first much annoyed at the presence of their youthful colleague. They soon saw that in knowledge and ability he was their equal.	*Leben* 13
11.9	1786	The first exercise in his notebook is on the chief evidences of the divine origin of the Scriptures.	*Leben* 15
		Verses on the historical fulfilment of Biblical prophecy are included.	*Leben* 15
		The conclusion is: "Historiam legisse putes, non carmina vatum."	*Leben* 16
		Reuchlin, Father Schelling's colleague, in raptures over this first performance, saw in this boy the future strong support of orthodoxy. He added this comment to the boy's exercise:	*Leben* 16
		"Tramite perge tuo, raro praedictio fallit; Dimidium voti, qui bene coepit, habet."	*Leben* 16
11.9–15	1786–90	Attended his father's seminary at Bebingen.	*Leben* 13 f.
12	1787	The next exercise consisted of a Latin and a Greek composition, Latin distichs, and Sapphic strophes.	*Leben* 16
		The third exercise contained a metrical translation after Lowth which was highly praised by Reuchlin.	*Leben* 16
		A series of exercises gives selections from the history of Greek philosophy with Latin verses appended; selections from Plutarch and Diodorus are rendered in metrical German; Greek epigrams are translated into Latin; or original Latin epigrams are written under a given title. One theme is from Horace's *Satires*.	*Leben* 16
12 or 13	1787–88	A new school-teacher, a rather well educated man, brought a library of fiction to the school. Schelling went wild over it, to the anxious concern of his father. But the boy was soon satiated and returned to his classics and scholarly books.	*Leben* 23
13 or 14	1788 or '89	During a vacation Schelling wrote a youthful but really scholarly monograph on the "History of the Cloister Bebenhausen." Part I gives a descrip-	*Leben* 16 ff.

Age	Date		Reference
13 or 14	1788 or '89	tion of the cloister and its surroundings. Part II contains the history with exact source references and some criticism. The work planned to extend "from the beginning to the present" was carried only to the middle of the fourteenth century. An appendix contains a list of the German and Latin epitaphs and inscriptions, as far as they were still decipherable. The little fellow spent hours on his knees in the dark arcades trying to decipher the inscriptions. The style is that of a child, simple and naïve. But at the same time the treatment is scholarly, critical and judicial. Every bit of evidence is carefully weighed before conclusions are drawn.	*Leben* 16 ff.
13–15	1788–90	Notebooks of these years are preserved. "A noted educator" has said of them that they exhibit not only such sureness in the knowledge of Latin grammar as is seldom found at the end of a course in the lower seminary, but in addition a distinct gift for Latin style. A considerable part of the *Hebdomadar* is translated into German and Greek prose. Numerous Latin verses, hexameters, and distichs show distinct talent.	*Leben* 13
		Schelling was carefully instructed from the first. The results are not those of a self-taught boy.	*Leben* 15
		At 13 he had the marks of a scholar.	*Leben* 21
		A great variety of topics were treated in the themes preserved, especially from theology, history, and philosophy, but also from ethnology, psychology, and ethics.	*Leben* 15
15 or earlier	1790	Two long Latin poems of the period are preserved:	*Leben* 16 ff.
		I. "To England" (in 81 distichs). A eulogistic description of England, the land of freedom. The men who have made England great: Milton, Hume, Thomson, Shakespeare, Franklin, Cook. The last two as follows:	
		"Illic fulminibus leges praescripsit et igni Divus Franclinus jura sacrata dedit."	*Leben* 17
		"Coccius immensum ter circum navigat orbem Et terras quaerit nave fugace novas."	*Leben* 17

Age	Date		Reference
15 or earlier	1790	An account of the geological origin of England is followed by a description of the presentation to England of gifts by the gods: Neptune, control over the sea; Jupiter, world position; Mars, power and bravery; Apollo, support to the poets; and finally, Mercury gives her world commerce. The goddesses bring a proud, unconquerable spirit, art and science, fair women, and fruitful fields.	*Leben* 17
		"The verses on the proud unaffrighted spirit of the English are not unworthy of a real poet":	
		"Sublimis mens est Anglis, et conscia magnae Virtutis celso pectora corde ferunt. Sic quoque Massyliis subito deprensus in arvis Stat leo virtutis conscius ipse suae; Undique se fundunt circum, genus acre, Molossi, Coelum latratu persona turba ferit. Ille manet rictumque fremens ostendit et ungues, Excussisque horrent aspera colla jugis."	*Leben* 18
		The poem concluded as follows:	*Leben* 18
		"Sic Divi.—Exultans ter promit gaudia felix Insula, ter tumido se movet ipsa mari; Consonat omne fretum vocem gratantia volvunt Litora, ter reboant saxa petraeque maris."	
		The author appends to this lengthy work a long page of Greek hexameters on the same subject.	
15.4	1790	II. The second Latin poem is on the mother-language. It shows Schelling's love of the oriental languages, and echoes his father's disagreement with the current view that the Chaldean language was the oldest.	*Leben* 19
		Verse writing was not the chief activity of the school. But Schelling had the crowning accomplishment of being able to write down dictated German directly into Latin hexameters. He could abstract (*excipiren*) Greek, Hebrew, and Arabic.	*Leben* 20

Age	Date		Reference
15.4	1790	He studied Greek with Reuchlin, Oriental languages with his father, Latin with both. Reuchlin loaded him with praise. His father was reserved. Both were excellent teachers, who knew how to develop the attributes of the scholar in their pupils. They taught the correct use of scholarly methods from the very beginning.	*Leben* 21
		Schelling performed a really scholarly work in his "Notes to Thucydides." By himself he did some special work on Pindar, making Latin comments on the Odes, which show wide reading and comprehension. In his father's considerable library, he gained a wide acquaintance with the Latin and Greek writers. His later school themes show a remarkable acquaintance with the standard aids to scholarly study.	*Leben* 21
		In study, a sedate, serious mind, Schelling was otherwise lively, even petulant. His sister says he was "a terrible tease" and "always up to something," apt to come out with satirical verses when he could discover a place for attack. The laughable or the mediocre were his targets. The disparity of age between little Schelling and his colleagues accentuated this tendency. There was no even-handed give and take. He was superior in intellectual attainment and capacity to the other much older members of his class.	*Leben* 21
		The instruction of an able scholar, an admirable teacher—his own father—was a real advantage.	*Leben* 22
15.4	1790	Philosophical studies were begun at Bebenhausen under Reuchlin's guidance. Reuchlin lent Schelling many books, especially on modern philosophy. Plato was begun.	*Leben* 25
		Schelling wrote later that there is such clearness in philosophical writing that the beginner, especially if he be intelligent, is actually at a loss. He understood the first philosophical works read so well that he thought he must have missed the point. But when he came to Leibnitz he realized there was still something to learn.	*Leben* 25
		After three years in the school, two classes had graduated, of which, in turn, he had been a member (of the	*Leben* 23

Age	Date		Reference
15.4	1790	first for one year until its graduation; of the second for full two years). His father, not wishing to hold him back any longer on account of his youth, the following year with considerable difficulty persuaded the Tübingen authorities to permit the boy's entrance (3 years under age) to the theological department (the Seminary). (This had occurred in only one other known case —Burk, a well known theological writer, 1729.)	*Leben* 23
15–17	1790–92	*In the Tübingen theological seminary preparing for the degree of magister.*	*Leben* 26
		Studies: Schelling devoted himself particularly to the study of (1) Hebrew, (2) Old Testament exegesis and criticism, (3) Kant (begun at 16), (4) Plato, (5)Aristotle, (6) Psychology, (7) Philosophy, (8) Theology.	*Leben* 26
		His course of lectures, as well as his individual studies, may be termed "critical theology" or "critical religious philosophy."	*Leben* 36
		Schelling collected Plato's myths and translated some of them. He made a collection of excerpts showing the types of imagination among the ancients.	*Leben* 29
		Teachers. Schnurrer had a great influence on Schelling. He was a weighty scholar of international renown with a personality in which human kindness and gravity were equally balanced.	*Leben* 27 f.
		Bök and *Abel* were of less significance.	
		Friends. Schelling had many acquaintances at Tübingen, where all the boys were in close quarters together. His four most intimate associates (each five years his senior) were: Hauber, a man of distinguished mathematical ability; Hölderlin, the young poet, who especially attracted the philosopher because of a common interest in classical, and especially Greek, literature; Renz, the *Primus* in Hegel's class, to which Hauber and Hölderlin also belonged; Hegel, with whom philosophical interests, and especially admiration for Kant, forged a strong bond. Older in years, Hegel had the advantage of Schelling in his knowledge of the world, derived through his life in the capital	*Leben* 68 f.

Age	Date		Reference
15–17	1790–92	from association with a variety of men and movements. He was regarded by all his associates as unusually intelligent, clear-headed, and able.	*Leben* 68 f.
		After these four left the University in 1793, Schelling's life became rather humdrum socially. At 18 he began to lead the isolated life of the scholar. He cared to associate with only a few of the men of his class, notably Pfister (the later historian) whose interest was in art.	*Leben* 70
		Schelling's only recreation was found in walking. As it was too far to walk all the way to his home, his mother used to meet him half way with hot coffee and a listening ear for all his confidences.	*Leben* 70
		Rank in his class. Positions were fixed and not changed except for unusual cause. An industrious lad from the allied preparatory school (with whose class Schelling had entered rather than wait another year) retained his first place in the seminary. Schelling was given second place, although generally recognized as far superior to any in the class.	*Leben* 29
		On the occasion of a visit from the duke, the *Primus*, according to custom, was to give an address. Beck, the *Primus,* a shy boy, who would have liked long before to give up his place to Schelling, requested the latter to give the address. This he did, to the satisfaction of the duke and the others present. Whereupon the duke advised the authorities to give Schelling the position he deserved at the next time of promotion.	*Leben* 30
		As disputant. Schelling distinguished himself and confounded his teachers. Frequently his fellow-students, besought him for points in debate, which he gave them—especially taking pleasure in giving such as would cause consternation (*Skandal*).	*Leben* 30
		As enthusiastic republican. The students were thrilled by echoes of the French Revolution. They planted "trees of freedom," sang or declaimed on freedom and liberty. The *Marseillaise* especially was a favorite. The duke heard a false rumor that Schelling	*Leben* 31 f.

Age	Date		Reference
15–17	1790–92	had translated it, and took occasion to reprimand him and the other boys in public. Schelling's behavior was so dignified and courageous that the duke was impressed. He asked Schelling whether he was sorry about it; and Schelling replied, "Your Grace, we are all miserable offenders."	*Leben* 31 f.
		Schelling's father was distressed over the incident and appreciative of the way in which the appearance of offense was cleared up and not held against his son. He wrote a dignified and respectful letter to the duke saying of his son in the course of his expression of regret for the incident: "From his first years of childhood up to the time when I had to let him go from my direct supervision, he has been at fault in innumerable errors due to youthful precipitancy. But I never remember finding him dishonest or untruthful; for, whatever he had done, even when he saw that reproof or punishment was inevitable, he was always ready with at least silent admission in answer to my first question. On this account I must almost certainly believe the direct assertion of his innocence." But he advised the boy to be more careful in the future.	*Leben* 32 f.
17	1792	Philosophical and exegetical studies continued.	*Leben* 38
		The sketch of an introduction to his papers (given in full in *Leben*) shows an unusual grasp of the theological and philosophical matter and manner.	
		Schelling studied dogma with Storr, a remarkable man, of strong personality and enduring influence, a thorough scholar, a rational theologian, a practical Christian.	*Leben* 50
17.9	1792	Schelling presented and defended theses for the Master's degree. Contrary to the usual custom of having the professors furnish the material to be defended, Schelling prepared his own. The work, written within a few days, hardly reviewed by the professor in charge, was complimented and the father was congratulated on his son's work. The work is on the origin and development of the first part of the book of Genesis. It shows acquaintance with Kant and	*Leben* 36

Age	Date		Reference
17.9	1792	Leibnitz, a special fondness for Lucretius, and admiration for Herder.	*Leben* 36
		Another work, written at 17 and published at 18 (first publication), is on "Myths, Historical Legends and Philosophemes of the most ancient world."	*Leben* 37
		Schelling was already regarded by Hegel and others as a champion of enlightenment in theology, and as a pioneer of scholastic rationalism.	*Leben* 38
19	1793	Philosophical studies began to absorb Schelling almost entirely. He was recognized as a Kantian, and a group of students is said to have gathered to hear him expound Kant's philosophy. He became acquainted with Fichte's work and recognized in him a kindred spirit.	*Leben* 52 f.
		A modest essay (second publication), "On the Possibility of a Philosophical System," he sent to Fichte, with an expression of his appreciation of the latter's formulation. Fichte published this and another essay the following year as evidences of the fire struck by his own work. This essay gave the author immediately in popular estimation a place in the foremost rank of existing philosophical writers.	*Leben* 56 *E. Brit.*
		"I live and move only in philosophy," Schelling wrote to Hegel.	*Leben* 61
		Letters on Dogmatism and Criticism was Schelling's third publication.	
19 or 20	1794 or'95	"The Childhood of Jesus" filled 19 closely written folio sheets.	*Leben* 67
20	1795	An article giving "New Deductions on Natural Right" was published in 1796 in the *Philosophical Journal.*	*Leben* 64
		As before, when taking the Master's degree, Schelling wrote his own dissertation for the theological degree instead of having it written by the professors in the usual way. He planned to write on a topic that would allow an indirect criticism on conditions in the science of theology at Tübingen. His professors advised against this and he wrote "De Marcione Paullinarum epistolarum emendatore."	*Leben* 66
		A notice in the Tübingen press reports that he had very satisfactorily	*Leben* 67

Age	Date		Reference
20	1795	defended his thesis in which "he had given a new proof of sagacity and scholarly zeal." Storr expressed, in addition to the usual phrases, the high regard in which the youth was held by his instructors.	*Leben* 67
		In the last year Schelling had written three philosophical and two theological works, and he had defended his thesis. His health broke under the strain, and he was forced to go home for some weeks' rest. Hegel warned him to spare his health, for his friends' sake, and to take plenty of time for recuperation.	*Leben* 67
		He passed his examination the same year. All his instructors hoped that, with the riches of his philosophical studies, he might turn again to theology.	*Leben* 68
		Schelling complained to Hölderlin how slow his progress in philosophy had been. His friend answered: "Be quite composed, you are as far along as Fichte. I have just heard him!"	*Leben* 71
20	1795	The publication followed of the elaborate work, "Vom Ich als Prinzip der Philosophie, oder über das Unbedingte in Menschlichem Wissen," which, remaining within the limits of the Fichtean idealism, nevertheless, exhibits unmistakable traces of a tendency to give the Fichtean method a more objective application and to amalgamate with it Spinoza's more realistic view of things.	*E. Brit.*
21–23	1796–98	Tutor to two youths of noble family. Schelling undertook this work with the understanding that he was to travel with his charges, but in this plan he was disappointed. He found his duties somewhat irksome, but had some time for study. He visited Jena and Weimar, met Schiller, formed a judgment of the poet's mingled strength and weakness. Correspondence with his parents and with his friends, especially with Hegel, shows continued philosophical interest. The struggle for liberty is still paramount. Appreciation of the beautiful in nature is expressed in his descriptions of travel.	*Leben* 11 *E. Brit.*
		Schelling contributed articles and reviews to the *Journal* of Fichte and Niethaimer. He threw himself with all	*E. Brit.*

Age	Date		Reference
21–23	1796–98	his native impetuosity into the study of physical and medical science.	*E. Brit.*
21	1796	The publication of the *Briefe über Dogmatismus und Kriticismus* was begun, "an admirably written critique of the ultimate issues of the Kantian system."	*E. Brit.*
22	1797	*Neue Deduction des Naturrechts* was written, which to some extent anticipated Fichte's treatment in the *Grundlage des Naturrechts* and was written independently about the same time.	*E. Brit.*
23	1798	A treatise *Von der Weltseele* was prepared and published.	
23	1798	Appointed Extraordinary Professor of Philosophy at Jena.	
23–28	1798–1803	Professorship at Jena. "The philosophical renown at Jena reached its culminating point during the years of Schelling's residence there. His intellectual sympathies united him closely with some of the most active literary tendencies of the time." With Goethe, who appreciated his work, he remained on intimate terms. Schiller repelled him, and he failed to understand Schiller's ethical idealism. "He quickly became the acknowledged leader of the Romantic school." In Schelling, essentially a self-conscious genius, eager and rash, yet with undeniable power, contemporaries hailed a personality of the true Romantic type.	*E. Brit.*
		Schelling's undoubtedly overweening self-confidence involved him in a series of disputes and quarrels at Jena, the details of which are important only as illustrations of the evil qualities in his nature which deface much of his philosophic work.	*E. Brit.*
23	1798	Enthusiastically received at Jena. Associated with Fichte and Hegel in the new philosophic movement.	*All sources*
24	1799	*Ideen zu einer Philosophie der Natur* published (written in 1795).	
25	1800	*Transcendentelles Idealismus* published. Schelling was at the height of his renown in Jena.	

CHARACTERIZATION

Reference

Schelling had the ponderous (*schwerfällige*) nature of the South-German, frequently associated with strong self-consciousness (*Selbstgefühl*), but requiring the favor of fortune and a responsive world to cause it to expand and give. Where appreciation is not forthcoming, its only choice is between silence and extreme crudeness. When Schelling did give himself freely he gave much; highly responsive to every stimulus to which his nature was sensitized, he responded by giving back fully and freely of what he had received; it was only in his later life that, driven in upon himself, he began to guard his treasures with mean distrust. The life that began and ended so gloriously did not lack its tragedy, the tragedy of having produced its choicest fruits too late. His best work was published only after his death. *A.D.B.*

BASIS FOR SCHELLING'S EMINENCE

"Schelling is one of the four chief metaphysical philosophers of Germany. His system, like those of Fichte and Hegel, was originally a sort of idealistic pantheism; but in his later writings his views seem to approximate more and more nearly to those which may be said to form the philosophic basis of Christianity. . . . . Schelling is distinguished from the other great philosophers of Germany by his combining with rare intellectual powers poetic gifts of a high order. . . . . He regarded art as the perfect union of the real with the ideal." *Lip.*

"During his lifetime Schelling was rated variously; raised to the skies by some, by others regarded as an incarnation of evil; he valued his own achievements extraordinarily highly." He has had a great influence on philosophy and natural sciences. In recent times his system of thought is again coming into prominence. *Meyer*

"The Romantic philosopher par excellence was F. W. J. von Schelling, whose influence on German intellectual life was hardly less widespread than that of Hegel or Schopenhauer. . . . . Schelling's chief service to the movement was in bringing the aesthetic theories of Romanticism to a focus. Schelling proclaimed art as the highest of all phenomena, for here alone was to be found that perfect blending of nature and spirit which he sought; art to him was the great harmonising medium, in which the contradictions of life and thought, nature and history, entirely disappeared." *Robertson* 428 *Robertson* 429

APPENDIX II

EXCERPTS FROM THE EARLY WRITINGS OF YOUNG GENIUSES

Selected and arranged by LEWIS M. TERMAN

(NOTE: Not all of the extant early writings of the young geniuses are included, nor is mention made in every case where there was early literary production. The selections included give a typical sampling of the more striking productions.)

JEREMY BENTHAM *181, †327

AI IQ 180 AII IQ 170

(See pp. 683 ff.)

Jeremy Bentham had begun to write in Latin before he was 6. A scrap of his work was preserved by the elder Bentham among his memoranda and attested as follows: "The line pasted hereon was written by my son, Jeremy Bentham, the 4th of December, 1753, at the age of five years, nine months, and nineteen days."

[Bowring: *Memoirs of Bentham, 1843,* p. 7]

At 13 Bentham wrote a Latin ode on the death of George II. "These verses made some noise, and a friend undertook to get Dr. Samuel Johnson's opinion of them. Dr. Johnson wrote as follows, after pointing out certain faults: 'When these objections are removed, the copy will, I believe, be received; for it is a very pretty performance of a young man.'"

[*Ibid.*, p. 41]

The following is one of Bentham's jokes, written in both English and Latin verse, at the age of 13 years, 11 months:

I'm asked to see his ape, by neighbour Blanckley:
I'll go—but, fear a truth, I'll tell you frankly
Lest he should strip the creature of his rug,
And in his skin impose himself for pug;
For had he but the skin, there needs no more;
In genius, manners, phiz—he's pug all o'er.

* The asterisk is followed by a number giving the rank of the individual in Group A of this study, i.e., Bentham is the 181st in eminence in the group of 282.

† The dagger is followed by a number giving the rank of the individual in Cattell's group of 1,000 eminent persons. (See pp. 18 and 31.) The two numbers (following * and † respectively) differ because in the present study royalty and hereditary aristocrats were omitted. They were included in Cattell's group.

The letter from which the following excerpts are taken was also written at 13.

Dear Papa,—I have sent you a declamation I spoke last Saturday, with the approbation of all my acquaintances, who liked the thing itself very well, but still better my manner of speaking it. . . . . I have disputed, too, in the Hall once, and am going in again tomorrow. There also I came off with honour, having fairly beat off not only my proper antagonist, but the moderator himself; for he was forced to supply my antagonist with arguments, the invalidity of which I clearly demonstrated. . . . .

[Bowring: *Memoirs of Bentham, 1843,* pp. 42–43]

RICHARD BENTLEY *106, †185

AI IQ 140 AII IQ 150

(See pp. 452 f.)

The following lines are from verses which Bentley wrote at 16 or 18, entitled "On the Papist's Conspiracy by Gunpowder." The lines reproduced refer to the Roman Pontiff.

. . . . For mathematics much renowned;
That fame's his due; for he hath found
The point of Archimede, he'th hurl'd
Religion upside down, and mov'd the world. . . . .

[Monk: *The Life of Richard Bentley,* I, 7]

PIERRE JEAN DE BÉRANGER *178, †323

AI IQ 115 AII IQ 130

(See pp. 258 ff.)

"At the age of 12, not guessing that verses must follow some regular rhythm I traced rhymed lines, some good, others bad, *but of the same length,* thanks to two pencilled lines drawn from the top to the bottom of the page, and I believe that in this manner I could make verses as regular as those of Racine."

[Béranger: *Ma Biographie,* p. 30]

A little later M. Laisnez, the son of the publisher, became Béranger's friend and taught him the rules of versification.

The following is from an epic poem, "Clovis," written between 18 and 21:

. . . Le soleil voit, du haut des voûtes éternelles,
Passer dans les palais des familles nouvelles.
Familles et palais, il verra tout périr;
Il a vu mourir tout, tout renaître et mourir;
Vu des hommes formés de la cendre des hommes;
Et, lugubre flambeau de la terre où nous sommes,
Lui-même, à ce long deuil fatigué d'avoir lui,
S'éteindra devant Dieu comme nous devant lui.

[Mansion: *Chansons Choisiés de Béranger,* p. xi]

GEORGE BERKELEY *153, †290

AI IQ 150 AII IQ 175

(See pp. 557 f.)

At 19 Berkeley wrote in Latin two tracts: (1) *Arithmetica,* which is an attempt to demonstrate arithmetic without the help of Euclid or algebra; and (2) *Miscellanea Mathematica.* Both were published three years later. At 24 Berkeley published his famous *Essay toward a New Theory of Vision,* which reached a second edition before the end of the year and profoundly influenced psychological and philosophical thinking.

THÉODORE BEZA *158, †285

AI IQ 125 AII IQ 140

(See pp. 310 f.)

It was between the ages of 16 and 20 that Beza composed most of the poems later published as his *Juvenilia.* "These celebrated pieces belong altogether to his youth; that is, to the period in which he was in no sense a Reformer, but, instead, a brilliant and ambitious devotee of belles-lettres."

[Baird: *Theodore Beza,* p. 27]

HERMANN BOERHAAVE *208, †368

AI IQ 140 AII IQ 150

(See pp. 455 f.)

At the age of 20 Boerhaave delivered an academic oration, *De Summo Bono,* to prove that the doctrine of Epicurus concerning the highest good was well understood by Cicero. He received a gold medal as a mark of approbation for this exercise.

[Pettigrew: *Biographical Memoirs of the Most Celebrated Physicians and Surgeons.*]

JACQUES B. BOSSUET *36, †62

AI IQ 160 AII IQ 160

(See pp. 631 f.)

When Bossuet was 16 years old he was called upon to give an extempore sermon. He discussed the glory of man and the glory of God, contrasting the life of Jesus the Christ with that of Alexander the Great. The opening sentence of his discourse was as follows:

Il y a cette difference parmi beaucoup d'autres entre la gloire de Jésus-Christ et celle des grands du monde, que la bassesse étant en ceux-ci du fonds de la nature, et la gloire accidentelle et comme empruntée, aussi l'élévation est-elle suivie d'une chute inévitable et qui n'a plus de retour; et au contraire en la personne du Fils de Dieu, comme la grandeur est essentielle et la bassesse étrangère, ses chutes qui sont volontaires sont suivies d'un état de gloire certain et d'une élévation toujours permanente. . . .

The admiration excited on this occasion was echoed throughout Paris, and even reached the ears of Cospean, bishop of Lisieux, who was greatly impressed and planned to have the young prodigy speak at the Hôtel Vendôme.

[Bossuet: *Œuvres Choisiés par Calvet*, pp. 2–3]

ROBERT BOYLE *199, †354

AI IQ 140 AII IQ 140

(See pp. 456 ff.)

Thomas Birch [in *The Life of the Honorable Robert Boyle*, I, 9–10] says that Boyle at idle hours wrote some verses, both in French and Latin, "and many copies of amorous, merry, and devout ones in English; most of which, uncommunicated, the day he came of age, he sacrificed to Vulcan. . . . ." At 20, Boyle wrote in a letter: "Divers little essays, both in verse and prose, I have taken the pains to scribble upon several subjects."

JOHN BRIGHT *207, †377

AI IQ 125 AII IQ 130

(See pp. 313 ff.)

At 18 and 19 John Bright delivered his first public speeches which were "eloquent," "powerful," and "elaborate" although "*memoriter*."

[*Dictionary of National Biography*]

HENRY PETER BROUGHAM *114, †194

AI IQ 160 AII IQ 170

(See pp. 632 ff.)

The following is from a tale entitled "Memnon, or Human Wisdom," written by Henry Brougham at the age of 13:

Memnon one day conceived the useless project of being perfectly wise. There is scarcely any man who has not at one time or other let this folly pass through his head. To be very wise (said Memnon to himself), and, of consequence, very happy, one has only to be without passions, and (as we all know) nothing is easier. In the first place, I shall never love any woman; for when I see a perfect beauty I shall say to myself, "These cheeks will one day be wrinkled; these fine eyes will be fringed with red; that plum [sic] neck will turn flat and flabby; that beautiful head will grow bald." Now, I have only to see all this with the same eyes at present that I must see it with afterwards, and surely that head will never turn mine. . . . .

[Brougham: *The Life and Times of Henry, Lord Brougham*, I, 51–52]

The following are excerpts from a letter of Brougham (at 13 years 4 months) to Lord Robertson:

. . . . You will perhaps remember that you allowed me to translate either Livy or Florus. I pitched upon the latter—not that his style appeared to me in any way superior to that of the other; but as I had

read, partly at Edinburgh and partly here, almost the whole of the first five books of Livy (a copy of which was the only part of his works I had), it naturally occurred that there would be less field for exertion in translating an author with whose works I was acquainted than in trying one whose works were quite new to me. Besides, I was confirmed in my choice when I recollected that *you* seemed to give the preference to Florus. That author, though concise and nervous, is not the less elegant and instructive. . . . . As for my studies, I have read about four books of Virgil's *Æneid*, beginning at the VI; one of Livy; have got through above three parts of Adam's *Roman Antiquities;* and am employed in the Greek verbs. When business is over I amuse myself with reading, skaiting [sic] or walking. If you can find leisure to write me a few lines, I shall think myself particularly honored by it. . . . .

[Brougham: *The Life and Times of Henry, Lord Brougham*, I, 24–25]

EDWARD G. BULWER-LYTTON *133, †247

AI IQ 140 AII IQ 145

(See pp. 458 ff.)

Edward Bulwer's first poetic attempt (at age 7) was in praise of King Henry V and Agincourt. At this age he was in love with Miss Rose T., and to her he addressed some verses. These were carefully transcribed by his mother and sent to her mother. [*The Life, Letters, and Literary Remains of Edward Bulwer, Lord Lytton, by his son*, I, 97.] Between 12 and 15 Bulwer started at school a kind of weekly magazine for poetry. Of the poems published in it his were considered the best.

The following letter was written at 14 years 5 months:

My dearest Mama.—I rec'd your last letter to-day, which I am very much obliged to you for. I wrote 2 or 3 days ago, directing to Knebworth, but, as they may not send it, I write again. I can easily guess your anxiety about my Brother, as you have always been so good a mother *to me*, and sincerely hope he is better, both for his sake and your own. . . . .

[*The Life, Letters, and Literary Remains of Edward Bulwer, Lord Lytton, by his son*, I, 123]

A year later he concludes a letter to his mother as follows:

. . . . I am pretty well. My cold has gone off. I have got a pair of Corderoi breeches and a pr of black cloth, as the Dr. said I had better have two pair. Were I not aware of the importance of your Time, I would send you a small Ode I have composed in imitation of Milton's "Allegro," upon a Poker. I will, however, no longer intrude upon Time so precious. . . . .

[*Ibid.*, I, 123]

At 16 he ends a letter to his mother with about thirty lines of verse, "On the Death of R. T.," the first six of which are as follows:

Why check the tear for her, whose op'ning bloom
Glow'd like the flow'r that blossoms o'er the tomb?
Like that, the fragrant loveliness it gave
Shew'd but how near is Beauty to the grave.
Why check the tear for her? and why deny
The rightful tribute of the pitying sigh? . . . .

[*Ibid.*, I, 125]

When Bulwer was 17 his mother published a volume of his verses, *"Ishmael, an Oriental Tale, with Other Poems,* by Edward George Lytton Bulwer, written between the age of 13 and 15." Here are a few lines:

. . . . Yes! though the hand of time has scarcely spread
His roseate wreath of youth around my head,
Yet I have felt how keen the piercing dart
That grief can give to lacerate the heart. . . . .

[*The Life, Letters, and Literary Remains of Edward Bulwer, Lord Lytton, by his son,* I, 145]

CHRISTIAN C. J. BUNSEN *147, †266

AI IQ 150 AII IQ 165

(See pp. 558 ff.)

When about 14, Bunsen wrote in one week an essay of 41 pages. The following are extracts from two letters written to his sister when Bunsen was 16 years old [translation]:

When at the University, I shall make a principal point of the study of languages. As to my future provision, I am not afraid; for the men of most influence here in our country have assured me of their good inclinations, and although I should of course, in the first instance, offer my services at home, yet when one has learnt what is requisite, other countries also may be open.

According to your desire, I send my discourse on Hope, which, as containing the thoughts of a brother, may not displease you. It is very short, because the regulation is absolute, not to occupy more than ten or twelve minutes, which is a very narrow space for a subject so abundant. A copy was sent to the Countess at Bergheim, by her desire, and she thought well enough of it to send it for my better recommendation to Göttingen.

[Bunsen: *A Memoir of Baron Bunsen,* I, 10]

EDMUND BURKE *6, †12

AI IQ 135 AII IQ 150

(See pp. 388 ff.)

The following is from a letter, written at age 15:

. . . . What would I not give to have my spirits a little more settled. I am too giddy. This is the bane of my life: it hurries me from my studies, and I am afraid will hinder me from knowing anything thoroughly. I have a superficial knowledge of many things, but scarce the bottom of any; so that I have no manner of right to the preference you give me in the first.

[Prior: *Life of the Right Honourable Edmund Burke,* p. 13]

The following is from a translation (over 140 lines) of the second *Georgic* of Virgil, made by Burke at 16:

. . . . Happy the man, who versed in Nature's laws,
From known effects can trace the hidden cause!
Him not the terrors of the vulgar fright
The vagrant forms and terrors of the night;

Black and relentless fate he tramples on,
And all the rout of greedy Acheron.
Happy whose life the rural god approves,
The guardian of his growing flocks and groves;
Harmonious Pan and old Sylvanus join
The sister nymphs, to make his joys divine:
Him not the splendours of a crown can please,
Or consul's honours bribe to quit his ease. . . . .

[Prior: *Life of the Right Honourable Edmund Burke,* pp. 19 f.]

ROBERT BURNS *55, †92

AI IQ 130 AII IQ 130

(See pp. 348 ff.)

The following are the first, third, sixth, and last stanzas of a seven-stanza poem written by Burns at 14 [revised later?]:

HANDSOME NELL

Oh once I loved a bonnie lass,
Ay, and I love her still;
And whilst that honour warms my breast,
I'll love my handsome Nell.
. . . . . .

A bonnie lass, I will confess,
Is pleasant to the ee,
But without some better qualities
She's no the lass for me.
. . . . . .

A gaudy dress and gentle air
May slightly touch the heart;
But it's innocence and modesty
That polishes the dart.

'Tis this in Nelly pleases me,
'Tis this enchants my soul;
For absolutely in my breast
She reigns without control.

[Chambers: *Life and Works of Robert Burns,* I, 30]

GEORGE GORDON, LORD BYRON *16, †30

AI IQ 150 AII IQ 170

(See pp. 560 ff.)

The following poem written by Byron at 14 is said by his biographer to be "one of his most juvenile" [Moore: *Letters, Journals, and Life of Lord Byron,* I, 66–67]:

Let Folly smile, to view the names
Of thee and me in friendship twined;
Yet Virtue will have greater claims
To love, than rank with Vice combined.

And though unequal is thy fate,
Since title deck'd my higher birth,
Yet envy not this gaudy state,
Thine is the pride of modest worth.

Our souls at least congenial meet,
Nor can thy lot my rank disgrace;
Our intercourse is not less sweet
Since worth of rank supplies the place.

A year later, at 15, Byron wrote these lines:

My epitaph shall be my name alone;
If that with honour fail to crown my clay,
Oh, may no other fame my deeds repay;
That, only that, shall single out the spot,
By that remember'd, or with that forgot.

[Moore: *Letters, Journals, and Life of Lord Byron,* I, 77–78]

PEDRO CALDERÓN *195, †348
AI IQ 140 AII IQ 140
(See pp. 461 f.)

Calderón is said to have written a drama, *The Chariot of Heaven,* at 14. [French: *Calderón, His Life and Genius,* p. 24.] "When he [Calderón] was graduated from the University he was already known as a writer for the theatre." [Ticknor: *History of Spanish Literature,* Vol. II, Part II, pp. 408 ff.] Calderón's earliest extant work is a sonnet, written at 20.

[Ticknor: *History of Spanish Literature,* Vol. II, Part II, pp. 408 ff.]

TOMMASO CAMPANELLA *253, †446
AI IQ 145 AII IQ 155
(See pp. 505 f.)

In Abruzzo Campanella [aged 15] greeted the Lord of the City at his accession to office, with a Latin address in hexameters, and a hymn in Sapphic strophes delivered before the assembled populace. Poems and inscriptions by him were engraved in the church and upon the triumphal arch.

[Carrière: *Die philosophische Weltanschauung der Reformationszeit,* I, 216]

GEORGE CANNING *117, †212
AI IQ 150 AII IQ 155
(See pp. 563 ff.)

The following is from a lengthy poem, written by Canning at the age of 9 and published in *Microcosm* a few years later, with limited alteration [Phillips: *George Canning,* pp. 9–10]:

Unrivall'd Greece! thou ever honour'd name,
Thou nurse of heroes dear to deathless fame!
Though now to worth, to honour all unknown,
Thy lustre faded, and thy glories flown,
Yet still shall memory with reverted eye
Trace thy past worth, and view thee with a sigh.
. . . . . .

This was thy state! but oh! how changed thy fame,
And all thy glories fading into shame,
What! that thy bold, thy freedom-breathing land
Should crouch beneath a tyrant's stern command!
That servitude should bind in galling chain
Whom Asia's millions once opposed in vain;
Who could have thought? Who sees without a groan
Thy cities mouldering, and thy walls o'erthrown!

JEROME CARDAN *259, †462

AI IQ 135 AII IQ 155

(See pp. 392 ff.)

The following describes Cardan's literary activity at the age of 19: ". . . . Boy as he was, he was at work upon his treatise on the Earning of Immortality; upon his treatise on the True Distances of Objects, based upon an old volume of Geber's, upon Triangles, that he had found among his father's books; upon his treatise on Games of Skill and Chance; and upon other youthful undertakings. From the first he was unable to confine his mind to labor on a single topic. He did not sit down to work out his immortality of fame by writing a great book; he began at once with three or four books. . . . ."

[Morley: *Jerome Cardan*, I, 41]

THOMAS CARLYLE *62, †103

AI IQ 140 AII IQ 155

(See pp. 464 ff.)

The following is from Carlyle's earliest extant letter, written when he was 18:

. . . . Were I disposed to moralise, there is before me the finest field that ever opened to the eye of mortal man. *Nap the mighty,* who, but a few months ago, made the sovereigns of Europe tremble at his nod; who has trampled on thrones and sceptres, and kings and priests, and principalities and powers, and carried ruin and havoc and blood and fire, from Gibraltar to Archangel—*Nap, the mighty* is—GONE TO POT! ! !

In another letter of the same year occurs this characteristic passage:

As I will be in Edunburgh at least *part* of the summer, I cannot but highly approve of the plan you proposed of sending our essays to be remarked on by each other. It is impossible that it *could* do any *harm;* and since it would afford a very useful exercise *at least,* it would, I am convinced, be a very profitable way of carrying on our correspondence.

I shall expect, therefore, in a few days to receive, per Carrier, a paper of yours to peruse, and directions how to proceed, with regard to time, etc. etc. Don't be particular as to the choice of a subject—*any* will do. It is very likely that I may send you some Mathematical thing or other, seeing I have got Bossut's *History of Mathematics* at this time, where perhaps there may be something new to you;—and again, I stumbled the other night upon a kind of a new demonstration of Pythagoras' *square of the hypoteneuse;* and if you don't find it yourself (most likely you will), I will send you it too. We need be at no loss for subjects, literary, metaphysical, mathematical, and physical are all before us. I am sure this would be a very good way of spending part of the summer; and you who are the *projector* will surely never draw back from what you yourself proposed, and therefore *will not fail* to send me your production the very next opportunity.

[Carlyle: *Early Letters* (Ed. Norton), I, 6–7]

CAMILLO BENSO DI CAVOUR *111, †191

AI IQ 150 AII IQ 150

(See pp. 567 ff.)

The following letter was written by Cavour when about 6 years of age to his 5-year-old playmate [translation]:

My dear Fanchonette: Why have you abandoned me? What a crime you are committing! I love you always and call you *my* Fanchonette; but now I have made the acquaintance of a charming, young and touching lady, whom I call "Sweetheart," but her name is Juliet Barolo. My little friend has come twice to take me to drive in her most beautiful gilded carriage.

[Thayer: *The Life and Times of Cavour,* I, 4]

The following is from a letter written by Cavour prior to the age of 16 [translation]:

I have received your kind letter, and am very much obliged for it. I perceive by your biting touches that you are a disciple of Juvenal, and that one can't prick you with impunity. Have you so little knowledge that you must make an effort to show it off? or else are you one of those old pedants who quote Virgil and Cicero to us at every instant? You would do much better to cross your t's and put the accents on the a's and e's where they need it, than to cudgel your brains to hunt verses that fit.

[*Ibid.*, 6]

THOMAS CHALMERS *165, †298

AI IQ 145 AII IQ 160

(See pp. 506 ff.)

The following is an extract from a composition by Chalmers written between 16 and 18:

How different the languor and degeneracy of the present age from that ardour which animated the exertions of the primitive Christians in the cause of their religion! That religion had then all the impressive effect of novelty. The evidences which supported its divine origin were still open to observation. The miracles of Christianity proclaimed it to be a religion that was supported by the arm of Omnipotence. The violence of a

persecuting hostility only served to inflame their attachment to the truth and to arouse the intrepidity of their characters. Enthusiasm is a virtue rarely produced in a state of calm and unruffled repose. It flourishes in adversity. It kindles in the hour of danger and rises to deeds of renown. The terrors of persecution only serve to awaken the energy of its purposes. It swells in the pride of integrity, and great in the purity of its cause, it even scatters defiance among a host of enemies. The magnanimity of the primitive Christians is beyond example in history. It could withstand the ruin of interests, the desertion of friends, the triumphant joy of enemies, the storms of popular indignation, the fury of a vindictive priesthood, the torments of martyrdom.

[Oliphant: *Thomas Chalmers*, pp. 9–10]

WILLIAM ELLERY CHANNING *187, †334

AI IQ 145 AII IQ 150

(See pp. 508 ff.)

In a letter written at 19, "remarkable for a boy of that age," Channing says that the chief end of man is the improvement of his mind in knowledge and virtue. Virtue and benevolence are natural to man. The cure for selfishness and avarice is to destroy distinctions of property.

You must convince mankind that they themselves and all that they possess are but parts of a great whole. They are bound to labor for the good of the great whole.

[Chadwick: *William Ellery Channing*, I, 48]

F. R. A. DE CHATEAUBRIAND *66, †109

AI IQ 150 AII IQ 150

(See pp. 569 ff.)

Chateaubriand described as follows his first writing of poetry: "It was on one of these walks that Lucile [his sister] hearing me speak of solitude, said to me, 'You ought to write down all that.' That word showed me my muse and a divine breath passed over me. I began to write poetry as if it had been my native tongue. Night and day I sang of my joys—that is of the woods and valleys—and I composed a number of little idylls or pictures of nature. . . . ."

[Chateaubriand: *Mémoirs d'outre-tombe*, I, 142]

One of his earliest poems, written before the age of 18, begins as follows:

Forêt silencieuse, aimable solitude,
Que j'aime à parcourir votre ombrage ignoré!
Dans vos sombre détours, en rêvant égaré,
J'éprouve un sentiment libre d'inquiétude!
Prestige de mon coeur! je crois voir s'exhaler
Des arbres, des gazons, une douce tristesse:
Cette onde que j'entends murmure avec mollesse,
Et dans le fond des bois semble encor m'appeler. . . .

[Chateaubriand, *Oeuvres Complètes*, III, 534]

THOMAS CHATTERTON *163, †291

AI IQ 170 AII IQ 170

(See pp. 663 ff.)

The following is from Chatterton's first known verses, published when the poet was 10 years 2 months old:

ON THE LAST EPIPHANY, OR CHRIST COMING TO JUDGMENT

Behold! just coming from above,
The judge, with majesty and love!
The sky divides, and rolls away,
T'admit him through the realms of day!
The sun, astonished, hides its face,
The moon and stars with wonder gaze
At Jesu's bright superior rays! . . . .

[Bell: "Life of Chatterton" (in Chatterton's *Poems*), ed. Aldine, I, 1–2]

Below are alternate stanzas of "A Hymn for Christmas Day," written at 10 (or 11) but not published:

Almighty Framer of the skies!
O let our pure devotion rise,
Like incense in Thy sight!
Wrapt in impenetrable shade
The texture of our souls was made,
Till Thy command gave light.

. . . . . .

How shall we celebrate the day,
When God appeared in mortal clay,
The mark of worldly scorn;
When the archangel's heavenly lays
Attempted the Redeemer's praise,
And hailed salvation's morn!

. . . . . .

Despised, oppressed, the Godhead bears
The torments of this vale of tears,
Nor bade His vengeance rise;
He saw the creatures He had made
Revile His power, His peace invade;
He saw with Mercy's eyes.

. . . . . .

My soul, exert thy powers, adore,
Upon devotion's plumage soar
To celebrate the day:
The God from whom creation sprung
Shall animate my grateful tongue;
From Him I'll catch the lay!

[*Ibid.*, 2–3]

SAMUEL TAYLOR COLERIDGE *157, †283

AI IQ 175 AII IQ 165

(See pp. 672 ff.)

The following lines, entitled "First Advent of Love," were written by Coleridge before his 16th year:

O fair is Love's first hope to gentle mind!
As Eve's first star through fleecy cloudlet peeping;

And sweeter than the gentle south-west wind
O'er willowy meads, and shadowed waters creeping,

And Ceres' golden fields;—the sultry hind
Meets it with brow uplift, and stays his reaping.

[Brandl: *Samuel Taylor Coleridge and the English Romantic School*, p. 24]

Coleridge's first publication was a poem, *Time Real and Imaginary—An Allegory*, written when the poet was 16.

AUGUSTE COMTE *58, †95

AI IQ 150 AII IQ 170

(See pp. 571 ff.)

Comte's first published essay appeared when he was 21 years old—*Séparation générale entre les opinions et les désires.* It is a short appeal for a positive political science.

M. CARITAT DE CONDORCET *161, †288

AI IQ 155 AII IQ 165

(See pp. 607 f.)

Before he was 17 Condorcet wrote the following, in a discussion of the question whether it is to man's interest to be just and virtuous [translation]:

A sentient being suffers from the evil which another sentient being experiences. In society, an unjust or criminal action cannot fail to injure some one. The author of such an action has, then, the consciousness of having caused suffering to one of his own kind. If the sensibility with which nature has endowed him remains intact, he must therefore suffer himself. In order, then, not to destroy his natural sensibility he must, in self-interest, strengthen his ideas of virtue and justice.

[Arago, "Condorcet," in *Smithsonian Annual Report*, 1878, p. 183]

BENJAMIN H. CONSTANT *211, †376

AI IQ 165 AII IQ 160

(See pp. 651 ff.)

The following is a letter written by Constant, aged 8 years 11 months, to his grandmother [translation]:

. . . . My dear father whose arrival I saw with great pleasure had told me that you continue your kindnesses to me. Your image is continually before my eyes, and it inspires me in everything I do. I say to myself what a pleasure it will be to have my grandmother pleased with me and to be a source of happiness to her. I have greater hopes of this now that my affairs are better organized since my father is directing them, for I was neglected under M. de la Grange. Although I have relaxed a little since

papa's return, I am making much more progress. I will give you a description of my occupations. On waking I lift my heart to God. At seven I get up and breakfast happily on fruit. I then translate a little theme from French into Latin; I learn my lessons; I play some piece on the harpsichord; I read Roman History and Homer, which I enjoy very much, especially Homer, because he is a writer whose poetry I love and who amuses me while giving me great ideas. He is the father of the religion of the ancients. . . . .

[Constant: *Autobiography*, pp. 104 ff.]

The following is from a letter to his grandmother written by Constant at the age of 10 [translation]:

In spite of what the ancients have thought I shall not live with them, and I believe I shall drop them while I am at an age to enjoy life with the living. I sometimes see a young English girl here of about my own age whom I much prefer to Cicero, Seneca, and the others. She teaches me Ovid, which she has never read, nor heard of, but I find it entirely in her eyes. I have written her a little romance and will send you the first page. If you like it I will send you the rest. . . . .

[Rudler: *La Jeunesse de Benjamin Constant*, p. 75]

PIERRE CORNEILLE *70, †120

AI IQ 130 AII IQ 140

(See p. 353)

At 12 Corneille received second prize for Latin verse. At 18 he began to write poetry. Poems of this period are found in his *Meslanges poetiques*, published when he was 26.

[Bouquet, *Points obscurs et nouveaux de la vie de Pierre Corneille*]

HERNANDO CORTEZ *120, †219

AI IQ 115 AII IQ 120

(See pp. 262 f.)

Before the age of 15 Cortez had learned "to write good prose, and even verses 'of some estimation, considering—as an old writer quaintly remarks—Cortez as the author.'"

[Prescott: *History of the Conquest of Mexico*, p. 166]

VICTOR COUSIN *59, †96

AI IQ 135 AII IQ 165

(See pp. 395 f.)

At 17, Cousin, although "bred in the gutter until he was 10," won the grand honor prize in Latin discourse, first prize in French discourse, first prize in Latin translation, and second prize in Greek translation.

[Hilaire: *Victor Cousin*, p. 27]

WILLIAM COWPER *260, †475

AI IQ 135 AII IQ 140

(See pp. 396 ff.)

Cowper began to show his gift for poetry when at 14 he translated an elegy of Tibullus.

The following are the first two stanzas from an *Ode* written at about this age:

To rescue from the tyrant's sword
Th' oppress'd—unseen and unimplor'd,
To cheer the face of wo;
From lawless insult to defend
An orphan's right—a fallen friend,
And a forgiven foe;

These, these, distinguish from the crowd,
And these alone, the great and good,
The guardians of mankind;
Whose bosoms with these virtues heave,
O, with what matchless speed, they leave
The multitude behind!

[Hayley: *Life and Letters of William Cowper,* I, 87–88]

GEORGE L. CUVIER *60, †97

AI IQ 155 AII IQ 160

(See pp. 608 ff.)

Even at the age of 14 Cuvier was "remarkable for his declamatory powers, and on the anniversary fête of the sovereign of Montbéliard, Duke Charles of Würtemberg, he composed an oration in verse, on the prosperous state of the principality, and delivered it fresh from his pen, in a firm manly tone, which astonished the whole audience. . . . ."

[Lee: *Memoirs of Baron Cuvier,* pp. 9–10]

GEORGES J. DANTON *166, †297

AI IQ 145 AII IQ 145

(See pp. 511 ff.)

When Danton was 15 years and 10 months old he carried off every prize in French discourse, Latin narrative, and poetry. "Imagination, judgment, precision, brilliance of thought, force, elegance, originality in expression—he lacked none of them, and the 18th of August 1775 was perhaps the happiest day of his life. His name was on every lip and was repeated with the flourish of trumpets. . . . ."

[Robinet: *Danton,* p. 163]

HUMPHRY DAVY *115, †203
AI IQ 150 AII IQ 175
(See pp. 574 ff.)

According to his brother, who had the information from his mother, Humphry Davy made rhymes and recited them when he was scarcely 5 years old. [Davy: *The Collected Works of Sir Humphry Davy,* p. 3.] His brother writes further [*Ibid.,* p. 5]: "From his facility in composing Latin and English verse, his assistance was often requested, even by boys much older than himself, in these exercises; and in writing valentines and love-letters he shone so pre-eminently, and gave his aid so willingly, that he is said to have been generally resorted to on all emergencies of boyish loves."

The following is a specimen of Davy's compositions at the age of 14:

> Our Creator should be the first object of gratitude, which is due to him for all his mercies. We should admire, love, and praise him. Indeed, we can never make sufficient return for his goodness: the least thing we can do is to be grateful; yet we seldom consider him as the dispenser of the blessings we enjoy; we rather attribute it to ourselves. Yet if he were to withdraw the least of his favours, we should think him unjust. Man seldom or never thinks himself obliged to his Maker; he makes a god of his own desires, and adores them instead of the Deity. We should think ourselves obliged to a person who snatched us from impending danger, or relieved us from distress: how much more grateful ought we to be to him who protects us every day from imminent danger, and desires nothing for his goodness but gratitude and praise? A grateful heart is more acceptable to the Lord than a multitude of sacrifices.
>
> H. Davy

[Davy: *The Collected Works of Sir Humphry Davy,* p. 11]

Below are two stanzas of a poem of thirty-two stanzas which Davy composed between the ages of 16 and 18:

> While superstition rules the vulgar soul,
> Forbids the energies of man to rise,
> Raised far above her low, her mean control,
> Aspiring genius seeks her native skies.
>
> . . . . . .
>
> Inspired by her, the sons of genius rise
> Above all earthly thoughts, all vulgar care;
> Wealth, power, and grandeur, they alike despise,—
> Enraptured by the good, the great, the fair.

[*Ibid.,* p. 24]

RENÉ DESCARTES *12, †23
AI IQ 150 AII IQ 160
(See pp. 577 f.)

Descartes produced his first formal work at 22, the *Compendium Musical,* written in Latin. It treated the subject from the point of view of mathematical proportions, and was favorably received by scientists.

[Haldane, *René Descartes: His Life and Times*]

CHARLES DICKENS *86, †152

AI IQ 145 AII IQ 155

(See pp. 513 ff.)

Before he was 8, Dickens wrote a tragedy, "Misnar," founded on one of the *Tales of the Genii.* At 9 he wrote in secret "Sketches of an Old Deaf Woman and an Old Barber." [Forster: *Life of Charles Dickens,* I, 30 ff.]

The following is a note written at 13 to one of his schoolfellows:

I am quite ashamed I have not returned your Leg [the Legend of something] but you shall have it by Harry tomorrow. If you would like to purchase my Clavis you shall have it at a very reduced price. Cheaper in comparison than a Leg.

Yours &c,

C. DICKENS

[Forster: *Life of Charles Dickens*]

At 24 Dickens published *Sketches by Boz* in two volumes, and the same year began *Pickwick Papers.*

[Forster: *Life of Charles Dickens*]

BENJAMIN DISRAELI *81, †143

AI IQ 145 AII IQ 150

(See pp. 515 f.)

At 14 and 15 Disraeli kept a diary of his reading. Commenting there on the Georgics, he admired the "extraordinary elegance of the versification" but thought "the celebration of ploughshares, of fallow land, and rainy days," a poor subject for a poet. One passage he calls the "finest specimen of versification that any language has ever produced." Discussing a "sublime" chapter of Lucretius, the young critic states that the "versification is rugged and wants the harmonious flow of Virgil." An attack upon the *Iliad* by his teachers brought a reply in the diary:

The Doctor and the Professor are equally contemptible. They mistake incapacity for originality and endeavor to compensate for their moderate talents by rejecting every established rule and advocating every ridiculous system.

Voltaire's *Critique on the Œdipus of Sophocles* he characterizes as

some just criticism mixed with much frivolity and bad taste.

[Monypenny: *Life of Benjamin Disraeli,* I, 27 ff.]

At 20 Disraeli published an anonymous pamphlet which was reviewed in the *Gentlemen's Magazine.* At 21 he published *Vivian Grey,* a novel, in two volumes.

[*Ibid.*]

JOHN DRYDEN *82, †144

AI IQ 125 AII IQ 130

(See p. 317)

Dryden's first published work was an elegy on the death of Lord Hastings, written at 18:

> . . . . But thou, O virgin-widow, left alone,
> Now thy belov'd, heaven-ravish'd spouse is gone,
> Whose skilful sire in vain strove to apply
> Med'cines, when thy balm was no remedy,
> With greater than Platonic love, O wed
> His soul, though not his body, to thy bed:
> Let that make thee a mother; bring thou forth
> The ideas of his virtue, knowledge, worth;
> Transcribe the original in new copies; give
> Hastings o' the better part: so shall he live
> In's nobler half; and the great grandsire be
> Of an heroic divine progeny:
> An issue, which to eternity shall last,
> Yet but the irradiations which he cast.
> Erect no mausoleums: for his best
> Monument is his spouse's marble breast.

[Dryden, *Poetical Works*, Aldine Edition, I, 4–5]

A. M. DUPIN *271, †479

AI IQ 120 AII IQ 140

(See pp. 281 f.)

At 23 Dupin published *Principia Jura Civiles* in five volumes.

[Ortolan: *Notice biographique sur M. Dupin*]

RALPH WALDO EMERSON *233, †419

AI IQ 145 AII IQ 145

(See pp. 517 ff.)

At the age of 10 Emerson wrote "*The History of Fortus; a Chivalric Poem*, in one volume, complete; with notes, Critical and Explanatory, by R. W. Emerson, L.L.D." The last eight lines were as follows:

> . . . . Six score and twenty thousand 'gan the fray,
> Six score alone survived that dreadful day.
> Ah! hear the groans of those that bled
> In that sad plain o'erlaid with dead.
> Fortus, who would not quit the field,
> Till every foe was forced to yield,
> To tender pity now transformed his wrath,
> And from the bloody field pursued his path.

[Emerson: *Emerson in Concord*, pp. 11–12]

The following is from a letter written at 11 years 9 months to his brother, at the close of the war in 1815:

. . . . What a change has taken place since I saw you last, and how happy is the change! But a little while since and the cry of war was heard in every place, but now

'Fair Peace triumphant blooms on golden wings,
And War no more of all his Victories sings.'
When the news reached this place a smile was on every face and joy in every heart. . . . .

[Cabot: *A Memoir of Ralph Waldo Emerson,* I, 46]

DESIDERIUS ERASMUS *31, †56
AI IQ 135 AII IQ 140
(See pp. 400 f.)

Froude [in *Life and Letters of Erasmus,* p. 7], writing of the period when the boy was 13 to 15 years of age, says: "He was always at work: writing prose, writing verse—verse in preference, which came easier. He composed whole heroic poems. He addressed a Sapphic Ode to the Archangel Michael."

CHARLES G. ÉTIENNE *129, †239
AI IQ 135 AII IQ 140
(See pp. 401 ff.)

Étienne, at 19, tried his hand at various kinds of writing, and at 21 made his debut in the theater with the appearance of *Le rève,* a little comic opera in one act.

[Sainte-Beuve: *Causeries du Lundi,* VI, 475]

MICHAEL FARADAY *184, †341
AI IQ 105 AII IQ 150
(See pp. 232 f.)

Although Faraday had little opportunity for education in his youth, he wrote, between 17 and 18, a notebook called "The Philosophical Miscellany." At a later date he described this youthful compilation as "a collection of notices, occurrences, events, etc., relating to the arts and sciences, collected from the public papers, reviews, magazines, and other miscellaneous works; intended to promote both amusement and instruction, and also to corroborate or invalidate those theories which are continually starting into the world of science."

[Jones: *The Life and Letters of Faraday,* I, 12–13]

FRANÇOIS FÉNELON *61, †102
AI IQ 145 AII IQ 145
(See pp. 519 f.)

At the age of 12 Fénelon was ready for the university. He had mastered the intricacies of French and Latin and wrote either language "with ease and elegance."

[Aimé: "Études sur la vie de Fénelon," in *Oeuvres de Fénelon,* I, 111]

JOHANN G. FICHTE *85, †150

AI IQ 145 AII IQ 155

(See pp. 520 ff.)

An essay written by Fichte at 18, *Oratorio de recto praeceptorum poeseos et rhetorices,* etc., is still kept in the archives of Schulpforta. It is characteristic, in fluent Latin, shows independent thought, and conclusions independently reached. It is, however, not philosophical, but rather critical and esthetic in character. It shows a not inconsiderable knowledge of literature. Lessing is evidently the model.

[Fichte: *Johann Gottlieb Fichte's Leben, etc.,* I, 17]

HENRY FIELDING *136, †261

AI IQ 120 AII IQ 135

(See pp. 284 f.)

Fielding, when about 18, wrote a burlesque and at 20 published a poem, *The Masquerade.* A comedy which he wrote the same year ran for four days with a famous cast, at the Theatre Royal.

[Cross, *The History of Henry Fielding,* Vol. I]

CHARLES JAMES FOX *43, †73

AI IQ 145 AII IQ 145

(See pp. 522 ff.)

At 15 Fox penned in Latin verse a farewell to Eton. The first four lines follow:

Ut patriae, (neque enim ingratus natalia rura
Praeposui campis, mater Etona, tuis,)
Ut patriae, carisque sodalibus, ut tibi dicam,
Anglice, supremum, Quintiliane, Vale. . . .

[Trevelyan: *The Early History of Charles James Fox,* pp. 52–53]

Below are the first four lines of some French verses also composed when their author was 15:

Longtemps du peuple Pitt favori adoré
Les méprisant toujours, en fut toujours aimé,
Estimant leur amour, il prodigua leur vie,
Et cherchoit la gloire aux dépens de sa patrie. . . .

[Russell (ed.): *Memorials and Correspondence of Charles James Fox,* I, 34]

BENJAMIN FRANKLIN *25, †45

AI IQ 145 AII IQ 145

(See pp. 524 ff.)

At 15 Franklin took a fancy to poetry and began to write little pieces. An occasional ballad, *The Lighthouse Tragedy,* was printed

and sold about town. At 18 Franklin wrote *A Dissertation on Liberty and Necessity, Pleasure and Pain,* a hundred copies of which were printed.

[Bigelow (ed.): *The Autobiography of Benjamin Franklin,* p. 179]

JOHN FRANKLIN *251, †442

AI IQ 135 AII IQ 135

(See pp. 403 f.)

The following is from a letter written by John Franklin at 15 years 1 month:

DEAR PARENTS: I take this opportunity to inform you that we were yesterday put under sailing orders for the Baltic and it is expected that we shall certainly sail this week. It is thought we are going to Elsineur to attempt to take the castle, but some think we cannot succeed. I think they will turn their tale when they consider we have thirty-five sail of the line, exclusive of bombs, frigates, and sloops, and on a moderate consideration there will be one thousand double-shotted guns to be fired, as a salute to poor Elsineur Castle at first sight. . . . .

[Traill: *The Life of Sir John Franklin,* p. 9]

PIERRE GASSENDI *119, †218

AI IQ 150 AII IQ 160

(See pp. 579 f.)

At 13, Gassendi composed little dramas in prose and poetry and with his playmates presented them in the homes of the leading families of Digne.

[*Nouvelle Biographie Universelle*]

EDWARD GIBBON *34, †60

AI IQ 145 AII IQ 155

(See pp. 528 ff.)

At 15 Gibbon started an essay, "The Age of Sesostris," with the object of investigating the probable date of the life and reign of the conqueror of Asia. The work was never completed.

[Gibbon: *Memoirs,* pp. 63–64]

At 21 Gibbon finished his first work, *Essay on the Study of Literature,* in French. Its style is described as commonplace, but its plea for giving history and politics a place in the sciences "was above the general thought of the age."

[Morison: *Edward Gibbon,* pp. 34–35]

JOHANN WOLFGANG GOETHE *4, †8
AI IQ 185 AII IQ 200
(See pp. 693 ff.)

The "Conversation" given below [in translation] is one of three written by Goethe in German and Latin at 7 years 8 months. The pun is on the Latin word *nuces*—nuts or wax figures.

Father: What are you doing there, my son?

Son: Making wax figures.

Father: I thought so. Oh, when will you ever put nuts aside?

Son: Why, I'm not playing with nuts, I'm playing with wax.

Father: Ignoramus, can it be that you don't know the meaning of 'nuts' in this connection?

Son: Now I remember. But see how well I have learned in a short time to model in wax.

Father: To spoil wax, you mean.

Son: I beg your pardon. Am I not creating rather clever things?

Father: Yes, indeed. Show me some of your malformations.

Son: Among other animals I have made, with special success, a cat with a long moustache, and a city mouse and a field mouse to illustrate one of Horace's satires, translated by Drollinger into pure German doggerel.

Father: I like this reminiscence better than the beasts themselves. But have you made nothing else which shows your alleged art more advantageously?

Son: Yes, indeed; here is a whale, with mouth wide open, as if to swallow us, and two chamois, which Emperor Maximilian was so fond of hunting that he is said to have been unable to find his way out of the declivitous rocks till an angel in human form showed him the path.

Father: Why, you apply your scraps of history so aptly that one must pardon your misshapen figures. And is that all?

Son: By no means; for of all my models the ones to be especially admired are: the crocodile shedding false tears, the monstrous war elephant of the ancients, the lizard, friend of man, the croaking frog announcing spring, all of which lack nothing but life.

Father: Nonsense! Who would be able to recognize them without the labels?

Son: Alas! Is not every man the best interpreter of his own works?

Father: This statement is quite true, but not *apropos*.

Son: Pardon my ignorance and deign to look at this sleighing party. There are just a dozen in it, all different, partly creeping and partly flying creatures, of which the swan, the stag, the walrus, and the dragon seem to be the most natural.

Father: You may think so, if you like, but it is perfectly apparent that you make no real distinction between beautiful and ugly.

Son: Dear father, will you be so kind as to teach me the difference?

Father: Certainly, but everything in season. Your power of observation must first be more mature.

Son: Oh, fiddlesticks! Why will you postpone it? Tell me about it to-day rather than tomorrow and I will listen to you while I play.

Father: I have already said it cannot be done now,—some other time. Put aside your childish nonsense now and go to your work.

Son: I will. Good-bye.

[Bielschowsky: *The Life of Goethe* (tr. Cooper), I, 32 ff.]

Before he was 9 Goethe began his *Morgenglückwünsche.* These were little occasional verses written in German, Greek, and Latin. His first extant poem was written at 15 years 6 months, *Poetische Gedanken über die Höllenfahrt Jesu Christi.* The first of its sixteen stanzas is as follows:

Welch ungewöhnliches Getümmel
Ein Jauchzen tönet durch die Himmel.
Ein grosses Heer zieht herrlich fort.
Gefolgt, von Tausend Millionen,
Steigt Gottes Sohn von seinen Trohnen,
Und eilt an jenen finstern Ort:
Er eilt umgeben von Gewittern;
Als Richter kommt er und als Held.
Er geht und alle Sterne zittern.
Die Sonne bebt, es bebt die Welt. . . . .

[Morris: *Der junge Goethe,* I, 85]

Goethe's first extant play, *Die Laune des Verliebten,* was written at 18.

HUGO GROTIUS *72, †125

AI IQ 185 AII IQ 190

(See pp. 699 ff.)

The following Latin verses were composed by Grotius in his 8th year:

Plaudite Mauritio victori quotquot adestis;
Namque is Caesaream Neomagum venit in urbem,
Vel potius Domino Victori plaudite Christo,
Namque is Maurition Neomagum tradidit urbem.

[Vreeland: *Hugo Grotius,* p. 10]

At 12 Grotius published two poems, one an ode in Greek, the other a Latin poem. The latter is preserved in the British Museum. [Vreeland: *Hugo Grotius,* p. 13.] At 14 he wrote "a new edition of that oldest and longest-lived of school books of Martianus Capella, ... which was the subject of the most extravagant praise by local contemporaries." [Knight: "The Infancy and Youth of Hugo Grotius," *Transactions of the Grotius Society,* VII, 20.] Butler says of this, "There is not, perhaps, an instance of a person's acquiring at an age equally early the reputation which attended the first publication of Grotius." [Butler: *Life of Hugo Grotius,* p. 58.] Vreeland says that it "took the learned world by storm."

At 17 Grotius published the *Aratea,* a translation of the treatise on astronomy written by Aratus. He added some Latin verses to replace those of Cicero which had been lost. These verses were

rated by Abbé Olivet as equal to the work of Cicero himself. At 18 Grotius published a tragedy, *Adamus Exul,* from which, later, Vondel, the greatest of Dutch poets, obtained materials for his *Lucifer.*

[Vreeland: *Hugo Grotius,* p. 33]

FRANÇOIS GUIZOT *33, †59

AI IQ 135 AII IQ 155

(See pp. 407 ff.)

The following is from a letter written by Guizot, at 18, to his mother [translation]:

. . . . I never put forward my opinions unless I think them better than those of others, and this I daresay gives me the appearance of pride. It may indeed be only through pride that I carefully avoid all discussion with those who do not seem to me to share, in reality, my opinions: there is a want of candour in arguing when one is determined not to join the ranks of one's opponents; in short, I always intend to hold fast, and to proclaim openly, my principles of morality, of religion, and of virtue. I found that I had sensibly weakened them by making some concessions which were recommended to me; I began to consider my steadfastness as exaggerated, and I was beginning to howl with the wolves. I wish to preserve myself from this contagion, even if I should fall into extreme severity. It is less hurtful to my character than extreme weakness. . . . .

[Guizot de Witt: *Pages des Grands Écrivains,* V, 11–12]

Guizot's first published work was a dictionary of synonyms, which appeared when he was 22 years old.

[*Ibid.*]

ALBRECHT HALLER *137, †253

AI IQ 175 AII IQ 180

(See pp. 675 ff.)

At the age of 8, Haller made great lexicons of Hebrew and Greek words, and a Chaldean grammar and he prepared as many as two thousand short biographies of famous people.

[Zimmermann: *Das Leben des Herrn von Haller,* p. 8]

At 9 years 6 months, Haller wrote his first poem, a Latin satire. At 11 he began to write German verse.

[*Ibid.,* 11]

Beginning at the age of 11 Haller wrote, for several years, poem after poem, sometimes in French, sometimes in German. The first stanza of one written between the ages of 11 and 15 is as follows:

RESOLUTION D'AIMER

Mon coeur! que sentez-vous pour la jeune Thémire?
A vous-même l'avoûrez-vous?
Ah! c'est un sentiment trop confus et trop doux,

Trop sentiment pour le décrire:
Plus doux que l'amitié, moins hardi que l'amour,
Trop fort pour le cacher, trop fort pour l'oser dire.
Je l'aplaudis et rougis tour à tour. . . .

[Hirzel, in the introduction to his edition of *Haller's Gedichte*, Vol. VIII]

ALEXANDER HAMILTON *118, †216

AI IQ 135 AII IQ 140

(See pp. 409 f.)

The following letter was written by Hamilton at 12 years 10 months to a schoolfellow:

As to what you say respecting your soon having the happiness of seeing us all, I wish an accomplishment of your hopes, provided they are concomitant with your welfare, otherwise not, ... To confess my weakness, Ned, my ambition is prevalent, so that I contemn the grovelling condition of a clerk or the like, to which my fortune, etc., condemns me, and would willingly risk my life, though not my character, to exalt my station. I am confident, Ned, that my youth excludes me from any hopes of immediate preferment; nor do I desire it; but I mean to preface the way for futurity. I'm no philosopher, you see, and may justly be said to build castles in the air; my folly makes me ashamed, and I beg you'll conceal it; yet Neddy, we have seen such schemes successful when the projector is constant. I shall conclude saying I wish there was a war.

[Morse: *Life of Alexander Hamilton*, p. 5]

WILLIAM HAMILTON *205, †263

AI IQ 140 AII IQ 160

(See pp. 470 f.)

The following is an extract from a boyish letter to his mother, written at the age of 14:

. . . . I hope that you have got my last letter. Public night will be in about a month hence. I intend to ask Mr. Dean not to insist on my speaking, as I hate and execrate it. I hope you will let me have the allowance, for I can buy all of my own things very well. I hope everybody and everything is well with you. I don't know how it is, but I like to write letters to you. . . . .

[Veitch: *Memoir of Sir William Hamilton*, p. 15]

Before 16, Hamilton was beginning to write essays on philosophical subjects and to show promise of literary attainments.

[*Ibid.*, pp. 21–22]

G. W. F. HEGEL *29, †51

AI IQ 150 AII IQ 145

(See pp. 580 ff.)

At 14 Hegel began to keep a diary. Its contents "are an echo of the enlightened views of the day, which Hegel heard from his teach-

ers, and read in the popular text-books of science and philosophy which they put into his hands. In this spirit he points out the evils of intolerance, and the necessity of thinking for one's self, condemns the superstitions of the vulgar, notices the similarity of the miracles of all ages, etc."

[Caird: *Hegel*, p. 6]

At 15 Hegel began a book of definitions and at 16 translated Longinus *On The Sublime*.

[*Ibid.*]

HEINRICH HEINE *198, †353

AI IQ 130 AII IQ 145

(See pp. 354 ff.)

Heine says of his mother [*Memoirs*, p. 20] that she lived in dread of poetry, snatched from him every romance that she found in his hands, ". . . . and in short did everything possible to keep me from superstition and poetry." Nevertheless, before 16 he had written a number of verses, one of which, "Wünnebergiade," is described as "a clever performance." When he was 19 several of his poems were published.

[Wolff: *Heinrich Heine*]

J. G. HERDER *145, †264

AI IQ 130 AII IQ 155

(See pp. 356 ff.)

Eight undated poems were written by Herder before he was 17.

[Herder: *J. G. von Herder's Lebensbild*, I, 168]

THOMAS HOBBES *37, †63

AI IQ 140 AII IQ 135

(See pp. 471 f.)

Before he reached the age of 14 Hobbes had translated the *Medea* of Euripides into Latin iambics.

[*Aubrey's Brief Lives*, I, 328]

VICTOR HUGO *80, †142

AI IQ 150 AII IQ 170

(See pp. 582 ff.)

During the three years which he passed at the Cordier pension, Hugo, aged 13 to 16, made verses of every possible variety—odes, satires, epistles, poems, tragedies, elegies, idylls, imitations of Ossian;

translations of Virgil, Horace, Lucian, Ansonius, Martial, romances, fables, stories, epigrams, madrigals, riddles, acrostics, charades, enigmas, impromptus and even a comic opera.

[Hugo: *Victor Hugo Raconté, etc.*, Vol. I]

Hugo's first book, *Odes et poésies diverses,* was published when the author was 20. His first novel appeared a year later. Both were favorably received.

[Davidson: *Victor Hugo*]

ALEXANDER VON HUMBOLDT *57, †94
AI IQ 140 AII IQ 170
(See pp. 472 ff.)

The following is quoted from a letter by Alexander von Humboldt written at the age of 19 years while he was attending the university [translation]:

. . . . My remarks upon a botany are not, however, founded solely upon *à priori* conclusions; on the contrary, these thoughts have been awakened in me by the great discoveries I have found buried in the writings of the earliest botanists, which have been confirmed in modern times by expert chemists and technologists. Of what avail is any discovery if there exists no means for its propagation? But I can crave forgiveness, my dear friend, for wearying you with subjects in which you can have but little interest. They are of the highest importance to me, since I am collecting materials for a work on the various properties of plants, medicinal properties excepted; it is a work requiring such great research, and such a profound knowledge of botany, as to be far beyond my unassisted powers, and I am therefore endeavoring to enlist the co-operation of several of my friends. . . . .

[Bruhns: *Life of Alexander von Humboldt,* I, 57]

The following is from another letter written at 19 [translation]:

Should you in course of time chance to meet with a small philological pamphlet, shortly to be published at Göttingen, and bearing on the title-page the words, "Edited with notes by Heyne," you may conclude it to be a production of mine. It is a dissertation upon the weaving-loom in use among the Greeks and Romans. The work is quite a prodigy of learning, and its compilation has been therefore most distasteful to me. I have discovered that the loom of the ancients was just the high-warp loom introduced by the Saracens into France—a fact capable of abundant proof from the bronzes of Herculaneum, the Onomasticon of Pollux, the writings of Isidorus, the Vatican MSS of Virgil, the descriptions of Homer, &c. The proof is somewhat elaborate, from the number of authorities to be consulted. Heyne is delighted with the work. . . . .

[*Ibid.*, 76]

DAVID HUME *32, †58
AI IQ 155 AII IQ 160
(See pp. 612 f.)

The following is from Hume's earliest extant letter. It was written at the age of 16 years, 2 months:

Dr. M.: I received all the books you write of, and your Milton among the rest. When I say it, I perceived there was a difference betwixt preaching and practising: you accuse me of niceness, and yet practise it most egregiously yourself. . . . . The perfectly wise man, that outbraves fortune, is surely greater than the husbandman who slips by her; and, indeed, this pastoral and saturnian happiness I have in a great measure come at just now. I live like a king, pretty much by myself, neither full of action nor perturbation,—*molles somnos.* This state however, I can foresee is not to be relied on. My peace of mind is not sufficiently confirmed by philosophy to withstand the blows of fortune. This greatness and elevation of soul is to be found only in study and contemplation—this can alone teach us to look down on human accidents. . . . .

[Burton: *Life and Correspondence of David Hume,* I, 12]

CHRISTIAN HUYGENS *170, †306

AI IQ 130 AII IQ 150

(See pp. 358 f.)

The following is from a letter written by Huygens at the age of 17 to his brother [translation]:

The greatest pastime I have is drawing with chalk which I do *"à toute force et de toute façon."* I have painted great life-like figures on garden wall with charcoal dipped in oil and with white chalk. They are the figures of Holbein's *Dodendans,* which from the size of a little finger I have enlarged to life size.

[Huygens: *Complete Works,* I, 17]

WASHINGTON IRVING *209, †382

AI IQ 130 AII IQ 145

(See pp. 359 f.)

Irving at 13 wrote a play (no longer extant), which was presented at a friend's house.

At 19 he began his humorous contributions published in the *Morning Chronicle* under the signature of Jonathan Oldstyle.

[Irving: *The Life and Letters of Washington Irving,* p. 34]

THOMAS JEFFERSON *49, †79

AI IQ 145 AII IQ 150

(See pp. 563 f.)

The following letter (written at 17) is the earliest extant production from the hand that was destined to pen one of the greatest documents in American history:

Sir—I was at Colo. Peter Randolph's about a fortnight ago, and my Schooling falling into Discourse, he said he thought it would be to my Advantage to go to College, and was desirous I should go, as indeed I am

myself for several Reasons. In the first place as long as I stay at the Mountain, the loss of one fourth of my Time is inevitable, by Company's coming here and detaining me from school. And likewise my Absence will in a great measure, put a Stop to so much Company, and by that Means lessen the Expenses of the Estate in House-keeping. And on the other Hand by going to the College, I shall get more universal acquaintance, which may hereafter be serviceable to me; and I suppose I can pursue my Studies in the Greek and Latin as well there as here, and likewise learn something of the Mathematics. I shall be glad of your opinion, and remain, Sir, your most humble servant,

THOMAS JEFFERSON, JR.

[Randolph: *The Domestic Life of Thomas Jefferson*, p. 26]

SAMUEL JOHNSON *27, †47

AI IQ 155 AII IQ 155

(See pp. 613 ff.)

"To a Young Lady on Her Birthday," was written almost impromptu, by Johnson before the age of 15.

This tributary verse receive, my fair,
Warm with an ardent lover's fondest prayer.
May this returning day for ever find
Thy form more lovely, more adorn'd thy mind;
All pains, all cares, may favouring Heaven remove,
All but the sweet solicitudes of love!
May powerful nature join with grateful art,
To point each glance, and force it to the heart!
O then, when conquer'd crowds confess thy sway,
When ev'n proud wealth and prouder wit obey
My fair, be mindful of the mighty trust:
Alas! 'tis hard for beauty to be just. . . . .

[Boswell: *Life of Johnson*, p. 6]

F. G. KLOPSTOCK *173, †313

AI IQ 135 AII IQ 155

(See pp. 413 ff.)

Klopstock at 17 wrote the following lines in his sister's Bible:

Eilt zu jener Ewigkeit!
Schwingt euch mit des Geistes Flügeln
Munter zu den Wolkenhügeln,
Wo euch Freude ist bereit!

[Muncker: *Friederich Gottlieb Klopstock*, p. 26]

In his teens Klopstock was already noted among his fellows for his talents in poetry. He wrote idylls and pastorals in German, Greek, and Latin [none preserved]. His teacher wrote: "He knows the true nature of this type of poetry."

[*Ibid.*, p. 30]

AUGUST VON KOTZEBUE *268, †474

AI IQ 145 AII IQ 150

(See pp. 537 ff.)

At the age of 6, after reading the fable of the "Milkmaid and the Two Huntsmen," Kotzebue wrote a one-page comedy on this theme.

[Kotzebue: *Sketch of the Life of August Kotzebue,* I, 15]

At 16 he wrote an elegy on the death of his friend's sweetheart. Although this was considered very good it was never printed. [*Ibid.,* p. 20] Kotzebue composed numerous other poems at about this time, and at 18 he wrote a tragedy, which was performed. Before 20 Kotzebue had written several successful dramas. [*Ibid.*]

ALPHONSE DE LAMARTINE *75, †131

AI IQ 135 AII IQ 150

(See pp. 416 ff.)

The following is the first of fifteen stanzas written by Lamartine at 16:

Que dis-tu donc a la lune,
Pauvre oiseau qui ne dors pas?
Cesse ta plainte importune;
Silence, ou gémis plus bas.

[Whitehouse: *The Life of Lamartine,* I, 42]

A. L. LAVOISIER *223, †393

AI IQ 120 AII IQ 150

(See pp. 292 f.)

At 17 Lavoisier outlined a prose drama *La Nouvelle Heloise,* but wrote only the first few scenes. At this time he also wrote many essays and dreamed of literary glory.

[Grunaux: *Lavoisier,* p. 4]

G. W. LEIBNITZ *19, †34

AI IQ 185 AII IQ 190

(See pp. 702 ff.)

A schoolfellow of Leibnitz fell ill three days before a festival at which he was to have given an address in verse. In order to fill the gap, Leibnitz, then 13, shut himself up in his study and wrote three hundred hexameters between daybreak and noon, which he recited at the festival. Before he was 20 he published an original mathematical article, *De Arte Combinatoria.*

[Guhrauer: *G. W. Freiherr von Leibnitz,* I, 8–9]

GIACOMO LEOPARDI *280, †494

AI IQ 170 AII IQ 175

(See pp. 665 ff.)

From the age of 12 on, Leopardi wrote poem after poem, tragedies, blank verse, essays, prose sermons, translations, etc. At 13 he began a history of astronomy, which he finished a few years later. At 19 he produced imaginary versions of lost Greek authors which were clever enough to deceive accomplished classical scholars. "Between his 12th and his 26th years (mainly between 13 and 20) he wrote a marvellous number of expositions, annotations, glosses, commentaries of every description, on many classical authors, testifying to philological learning and genius seldom paralleled. . . . . Among them were a *Commentary on the Life of Plotinus by Porphyry; Essay on the Popular Errors of the Ancients* (which forms a volume in the Florence edition of his works); *Fragments gathered from the Holy Fathers of the Church; Glosses on Plato, Dionysius of Halicarnassus, Demetrius Phalereus, Theon the Sophist,* etc., *Dissertations on Moschus,* the *Batrachomyomachia, Philo Judaeus, The Reputation of Horace among the Ancients,* etc., together with the fragments on Celsus, Florus, Xenophon, etc. . . . ."

[Thompson: *Essays, Dialogues and Thoughts of Leopardi,* p. 4]

GOTTHOLD E. LESSING *84, †149

AI IQ 135 AII IQ 150

(See pp. 418 ff.)

Lessing began his dramatic career at 16, when he planned and executed a part of *Der Junge Gelehrte.* This was completed two years later and presented on the stage at Leipzig. It was also at this age that he wrote most of the lyrics which were later published under the title *Kleinigkeiten.* Just before he was 14 he wrote a New Year's greeting to his father on "The Likeness of One Year to Another," in which he alludes to the "melancholy, discontented, and ungrateful people" who continually complain that the world is degenerating. . . . . "The object of the paper is to show, on grounds both of reason and Scripture, that the present times are as good as the past, and that the future will be as good as the present. Such phrases as 'The world has the greatest perfection of its kind!' 'All things in the world harmonize with each other;' 'God maintains the world by a number of forces which He created for it;' 'These forces exist in the same number and form as at the beginning of the world,' prove that already, when only a boy of 14, he knew something of philosophical speculations. The style is somewhat stiff, but the ideas are logically arranged, and his meaning shines through his words with absolute distinctness."

[Sime: *Lessing,* I, 31]

JUSTUS LIEBIG *217, †382
AI IQ 125 AII IQ 165
(See pp. 323 ff.)

Liebig began his publications in chemistry at the age of 18 with an article of fourteen pages in Büchner's *Repertorium der Pharmacie,* on fulminating silver. It carries an introduction by Kästner in praise of the young chemist. A second article followed soon after.

[Volhard: *Justus von Liebig,* I, 24]

Liebig's doctoral dissertation, on the relations of mineral chemistry to plant chemistry, was written at 20.

ABRAHAM LINCOLN *23, †40
AI IQ 125 AII IQ 140
(See pp. 325 ff.)

Lincoln was 17 when he wrote "Adam and Eve's Wedding Song," for his sister's wedding. Four stanzas follow:

When Adam was created
He dwelt in Eden's shade,
As Moses has recorded,
And soon a bride was made.

. . . . .

The woman was not taken
From Adam's feet we see,
So he must not abuse her,
The meaning seems to be.

The woman was not taken
From Adam's head, we know,
To show she must not rule him—
'Tis evidently so.

The woman she was taken
From under Adam's arm,
So she must be protected
From injuries and harm.

[Herndon and Weik: *Abraham Lincoln,* I, 45–46]

Better known lines by Lincoln are the following:

Good boys who to their books apply
Will all be great men by and by.

Abraham Lincoln, his hand and pen:
He will be good, but God knows when.

[Lamon: *The Life of Abraham Lincoln,* p. 62]

HENRY WADSWORTH LONGFELLOW *169, †303
AI IQ 150 AII IQ 160
(See pp. 587 ff.)

The first extant letter of Longfellow was written at the age of 6 years, 11 months.

DEAR PAPA,—Ann wants a little Bible like Betsey's. Will you please buy her one, if you can find any in Boston. I have been to school all the week, and got only seven marks.[1] I shall have a billet on Monday. I wish you to buy me a drum.

HENRY W. LONGFELLOW

[Longfellow: *Life of Henry Wadsworth Longfellow*, I, 7]

Longfellow's first printed verses, *The Battle of Lovell's Pond,* appeared in the *Portland Gazette.* The poet was then 13 years and 9 months old. The first two of the four stanzas follow:

Cold, cold is the north wind and rude is the blast
That sweeps like a hurricane loudly and fast,
As it moans through the tall waving pines lone and drear,
Sighs a requiem sad o'er the warrior's bier.

The war-whoop is still, and the savage's yell
Has sunk into silence along the wild dell;
The din of the battle, the tumult is o'er
And the war-clarion's voice is now heard no more.

[*Ibid.*, 21–22]

["Mr. Finney's Turnip," a poem often mentioned as Longfellow's first, was not written by him.]

"To Ianthe" was published when its author was 15. The first stanza follows:

When upon the western cloud
Hang day's fading roses,
When the linnet sings aloud
And the twilight closes,—
As I mark the moss-grown spring
By the twisted holly,
Pensive thoughts of thee shall bring
Love's own melancholy.

[*Ibid.*, 40–41]

THOMAS B. MACAULAY *53, †90

AI IQ 180 AII IQ 165

(See pp. 687 ff.)

The first stanza of *Olaus the Great,* written by Macaulay at 7 years, 11 months, is as follows:

Day set on Cambria's hills supreme,
And, Menai, on thy silver stream.
The star of day had reached the West.
Now in the main it sunk to rest.
Shone great Eleindyn's castle tall:
Shone every battery, every hall:
Shone all fair Mona's verdant plain;
But chiefly shone the foaming main.

[Trevelyan: *The Life and Letters of Lord Macaulay*, I, 39]

The following is from a letter which Macaulay wrote at 12 years, 4 months:

[1] The marks were for slight offenses doubtless.

In my learning I do Xenophon every day, and twice a week the Odyssey, in which I am classed with Wilberforce, whom all the boys allow to be very clever, very droll, and very impudent, ... We are exercised also once a week in English composition, and once in Latin composition, and letters of persons renowned in history to each other. We get by heart Greek grammar or Virgil every evening. As for sermon-writing, I have hitherto got off with credit.

[Trevelyan: *The Life and Letters of Lord Macaulay*, I, 48–49]

MADAME DE MAINTENON *155, †281
AI IQ 120, AII IQ 130
(See pp. 294 f.)

At the age of 13 Françoise D'Aubigné (afterward Madame de Maintenon) dispatched the following letter from her boarding school [translation]:

Madame and Aunt,—The remembrance of the wonderful kindness you used to show to poor, forsaken children, induces me to beseech and implore you to use your influence to get me out of this place, where my life is worse than death could be. You cannot imagine what a place of torment this house, called a Religious House, is to me; nor the severity and cruelty of my custodians. I implore you, my dear aunt, to have pity on your brother's daughter and your humble servant,

(Signed) Françoise D'Aubigné

[Dyson: *Mme de Maintenon, Her Life and Times*, p. 35]

PHILIPP MELANCHTHON *77, †137
AI IQ 160 AII IQ 180
(See pp. 635 ff.)

The following Latin verses were composed by Melanchthon at the age of 13:

Quod quondam vasta clamarant voce beati,
Christi quod vatum turba sacrata dedit,
Et quibus illustrat Christi lex optima cunctos
Mortales fidei religione sacra,
Germanum specimen, en Keyserspergius unus
Haec declamavit perbene Christicolis.
Illius here Parce crudelia numina fila
Solverunt, patrie lausque decusque vale.
Argentina tuum patremque ducemque Tribotum
Lugeto et precibus semper adesto piis.

[Hartfelder: *Philipp Melanchthon*, p. 31]

FELIX MENDELSSOHN *230, †404
AI IQ 150 AII IQ 155
(See pp. 589 ff.)

Excerpts from a letter written by Mendelssohn at the age of 12 years, 9 months [translation]:

November 6, 1821

After church I wrote to you that little letter dated 4th instant, and went to the Elephant Hotel, where I made a sketch of Lucas Cranach's house. Two hours later Professor Zelter came, calling out: "Goethe has come, the old gentleman has come!" We instantly hurried downstairs and went to Goethe's house. He was in the garden, just coming 'round a hedge. Isn't it strange, dear father—just the same as it happened with you! He is very kind, but I do not think any of his portraits like him. He then went through his interesting collection of fossils, which has been newly arranged by his son, and said repeatedly: "H'm, h'm, I am quite satisfied." After that I walked in the garden with him and Professor Zelter, for about half an hour. Then we went to dinner. He does not look like a man of seventy-three, rather of fifty. After dinner, Fräulein Ulrike, Frau von Goethe's sister, asked him for a kiss, and I followed her example. Every morning I have a kiss from the author of "Faust" and "Werther," and every afternoon two kisses from the father and friend Goethe. Think of that! In the afternoon I played to Goethe for about two hours, partly fugues of Bach and partly improvisations.

[Hensel: *The Mendelssohn Family.*]

METASTASIO *237, †419

AI IQ 145 AII IQ 145

(See pp. 542 f.)

Before the age of 12 Metastasio improvised eighty stanzas in a single evening. At 12 he translated the *Iliad* into octave stanzas. At 14 he composed a tragedy in the manner of Seneca, which was printed a year later.

[*Encyclopedia Britannica*]

JOHN STUART MILL *103, †180

AI IQ 190 AII IQ 170

(See pp. 707 ff.)

At the age of 6 Mill began a history of Rome. The first paragraph runs thus:

First Alban Government: Roman Conquest in Italy. We know not any part, says Dionysius of Halicarnassus, of the History of Rome till the Sicilian invasions. Before that time, the country had not been entered by any foreign invader. After the expulsion of Sicilians, Iberian (?) kings reigned for several years; but in the time of Latinus, Aeneas, son of Venus and Anchises, came to Italy, and established a kingdom there called Albania. He then succeeded Latinus in the government, and engaged in the wars of Italy. The Rutuli, a people living near the sea, and extending along the Numicius up to Lavinium, opposed him. However, Turnus their king was defeated and killed by Aeneas. Aeneas was killed soon after this. The war continued to be carried on chiefly against the Rutuli, to the time of Romulus, the first king of Rome. By him it was that Rome was built.

[Bain: *John Stuart Mill*, p. 3]

Before 12 Mill began a "History of the Roman Government," and "achieved as much as one book of a continuation of the *Iliad*."

[Mill: *Autobiography*, p. 15]

At 16 he published two letters in defense of his father's economic views. At 19 his principal occupation was editing Bentham's book on *Evidence.*

[Bain: *John Stuart Mill*]

JOHN MILTON *8, †16

AI IQ 145 AII IQ 170

(See pp. 545 ff.)

The earliest poetical works of Milton which have been preserved are paraphrases of two psalms, written at 15. Both are well known. The first lines of each are reproduced here:

PSALM 114

When the blest seed of Terah's faithful son
After long toil their liberty had won,
And past from Pharian fields to Canaan land,
Led by the strength of the Almighty's hand,
Jehovah's wonders were in Israel shown,
His praise and glory were in Israel known.

PSALM 136

Let us, with a gladsome mind,
Praise the Lord, for he is kind:
For his mercies aye endure,
Ever faithful, ever sure.

[Masson: *The Life of John Milton,* I, 94–95]

G. H. R. DE MIRABEAU *30, †55

AI IQ 165 AII IQ 175

(See pp. 654 ff.)

When he was 5½ years old Mirabeau was told by his teacher to write anything that came into his head. The composition that resulted follows here:

Monsieur de Mirabeau, I beg you to pay attention to your writing and not to make blots on your copy-book, to take notice of what is done, to obey your master, your father, your mother; not to be obstinate; no evasions, honour above everything; attack nobody unless you are attacked yourself; defend your country; be not disagreeable to the servants, nor be familiar with them; conceal the faults of your neighbour, because that may happen to you yourself.

[Fling: *Mirabeau and the French Revolution,* I, 133]

THOMAS MOORE *185, †332

AI IQ 140 AII IQ 140

(See pp. 480 ff.)

"The commencement of my career in rhyming was so very early as to be almost beyond the reach of memory."

[Russell (ed.): *Memoirs of Thomas Moore,* p. 5]

At 11 Moore wrote the following epilogue describing, as he says, "the transition we were about to undergo from actors to mere school boys":

Our Pantaloon that did so aged look,
Must now resume his youth, his task, his book.
Our Harlequin who skipp'd, leap'd, danced, and died,
Must now stand trembling by his tutor's side.

[Russell (ed.): *Memoirs of Thomas Moore*, p. 7]

The following is from a pastoral ballad written by Moore at 14:

My gardens are crowded with flowers,
My vines are all loaded with grapes;
Nature sports in my fountains and bowers,
And assumes her most beautiful shapes.

[*Ibid.*, p. 11]

SIR THOMAS MORE *64, †106

AI IQ 135 AII IQ 135

(See pp. 423 f.)

"As a boy" More wrote as follows on "Fortune's Wheel":

Alas! the foolish people cannot cease
Nor void her train, till they the harm do feel—
About her always busily they press;
But, Lord! how he doth think himself full well
That may set once his hand upon her wheel;
He holdeth fast, but upward as he flieth,
She whippeth her wheel about, and there he lieth.

[Bridgett: *Life and Writings of Sir Thomas More*, pp. 14–15]

WOLFGANG AMADEUS MOZART *56, †93

AI IQ 150 AII IQ 155

(See pp. 592 ff.)

Mozart at the age of 14 wrote as follows to his sister [translation]:

I rejoice in my heart that you were so well amused at the sledging party you write to me about, and I wish you a thousand opportunities of pleasure, so that you may pass your life merrily. But one thing vexes me, which is, that you allowed Herr von Molk [an admirer of this pretty young girl of eighteen] to sigh and sentimentalize, and that you did not go with him in his sledge, that he might have upset you. What a lot of pocket-handkerchiefs he must have used that day to dry the tears he shed for you! He no doubt, too, swallowed at least three ounces of cream of tartar to drive away the horrid evil humors in his body. I know nothing new except that Herr Gellert, the Leipzig poet, is dead, and has written no more poetry since his death. Just before beginning this letter I composed an air from the "Demetrio" of Metastasio, which begins thus, "Misero tu non sei."

[Wallace (tr.): *Letters of Wolfgang Amadeus Mozart*, I, 10]

ALFRED DE MUSSET *218, †464

AI IQ 160 AII IQ 170

(See pp. 638 ff.)

Musset wrote his first poem at the age of 14. It was not preserved. At 16 he won a second prize in philosophy with a Latin dissertation on "The Origin of Our Feelings." An excerpt follows from a letter written at 16:

The papers are so insipid—critics so flat! Make systems, my friends, establish rules; you are working only on the cold monuments of the past. A man of genius will come, and he will upset your scaffoldings, laugh at your poetics. I feel at moments a wish to take the pen and defile one or two sheets of paper, but the initial difficulty deters, and a sovreign disgust makes me stretch my arms and shut my eyes. How is it that I am left here for so long? I need to look at woman; I need a pretty foot and a shapely waist; I need to love. I would fall in love with my cousin, who is old and ugly, if she were not thrifty and a pedant.

[Barine: *The Life of Alfred de Musset*, pp. 19–20]

At 18 Musset composed his famous *Ballad of the Moon*, which is included in his complete works. Two stanzas follow here in translation:

Oh, moon! what somber elf
Doth move, on end of string.
Thyself
In planetary swing?
Art thou of heaven the eye?
Thou seest in knavish task
The cherubs fly
Around thy whitish mask?

[Musset, *Complete Works*, Vol. I]

ISAAC NEWTON *7, †14

AI IQ 130 AII IQ 170

(See pp. 364 f.)

The following verses were written beneath Newton's portrait of Charles I. It is thought that Newton may have written them (during his teens):

A secret art my soul requires to try,
If prayers can give me what the wars deny.
Three crowns distinguished here, in order do
Present their objects to my knowing view.
Earth's crown thus at my feet I can disdain,
Which heavy is, and at the best but vain.
But now a crown of thorns I gladly greet,—
Sharp is this crown, but not so sharp as sweet;
The crown of glory that I yonder see,
Is full of bliss and of eternity.

[Brewster: *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, p. 11]

BERTHOLD G. NIEBUHR *135, †250

AI IQ 165, AII IQ 175

(See pp. 656 ff.)

Before he was 7 years old, Niebuhr, after hearing it read aloud, filled seven sheets of paper with the story of Macbeth "without omitting one important point."

[Winkworth (ed. and tr.): *Life and Letters of Niebuhr,* I, 10–11]

When about 11 years of age, Niebuhr kept copy books in which he wrote essays, mostly on political subjects. Among his childhood productions were translations and interpretations of passages in the New Testament, poetical paraphrases from the classics, sketches of little poems, a translation of Poncet: *Travels in Ethiopia;* an historical and geographical description of Africa, written at 11, and many other sketches.

[*Ibid,* 12–13]

Niebuhr was 17 years and 8 months old when he wrote the following letter to his parents [translation]:

I do not flatter myself with the idea that I shall ever become, properly speaking, a critical philosopher. No, that I dare not hope for, because I cannot devote my whole life to this study, and indeed think I can employ it more profitably in active exertion. The philosopher's satisfaction ends with speculation. But as Bolingbroke justly remarks, he who speculates in order to act, goes farther. I could wish I had it in my power to do this, and to that end, should like to devote two years to philosophy, and then to study jurisprudence as long as might be necessary. But if I must be content with one year of philosophy, and even divide the latter of that with jurisprudence, I will, at least as far as I can, strive to gain a thorough insight into the system of the Critical Philosophy, and when I have once got on the right track, follow it perseveringly till I have found either truth, or the impossibility of truth. . . . .

[*Ibid.,* 36 ff.]

WILLIAM PENN *13, †26

AI IQ 135 AII IQ 150

(See pp. 428 f.)

A Latin elegy was written by Penn at the age of 16 on the death of the Duke of Gloucester, the king's brother. Clarkson translates it as follows:

Though 'twas a fast-day when thou cam'st, thy birth
Turn'd it at once to one of festive mirth.
Though England, at thy death, still made her show
Of public joy, she pass'd to public woe.
Thou dost, alone, the public breast control,
Alone, delight and sorrow to the soul.

[Clarkson: *Memoirs of William Penn,* I, 9]

WILLIAM PITT, THE ELDER *63, †105

AI IQ 140 AII IQ 140

(See pp. 482 f.)

First extant letter, written at 14 years 10 months:

Eaton, September the 29th.

Hon^{ed} Sir,

I write this to pay my duty to you, and to lett you know that I am well. I hope you and my mama have found a great benefit from the Bath, and it would be a great satisfaction to me to hear how you do; I was in hopes of an answer to my last letter, to have heard how you both did, and how I should direct my letters to you; for not knowing how to direct my letters has hindered me writing to you, my time has been pretty much taken up this three weaks, in my trying for to gett into the fiveth form, and I am now removed into it; pray my duty to mama and service to my uncle and aunt Stuart if now att the Bath. I am with great respect;

Hon^{d} Sir,

Your most dutiful son,

W. Pitt

[Williams: *The Life of William Pitt*, I, 33]

WILLIAM PITT, THE YOUNGER *9, †18

AI IQ 160 AII IQ 180

(See pp. 640 ff.)

At 13, Pitt wrote a tragedy in five acts, which was performed before the family and friends. Of it Macaulay said, "a tragedy, bad, of course, but not worse than those of his friend" (meaning Hayley, the poet).

[Macaulay, T. B.: *Critical Essays*, VI, 223]

The following is from a letter written by Pitt at the age of 14 years, 5 months to his father:

Our journey from the place at which I had the happiness of addressing a letter for Burton Pynsent has been accomplished with much ease. By reaching Hartford Bridge the second night, we had abundance of time upon our hands, so that we might have reached our goal the fourth night; but it was judged better to come in, in a morning, that we might have the day before us to settle in our new habitation. To make out our five days, we took the road by Binfield, and called in upon Mr. Wilson's curate there; who soon engaged with his rector in a most vehement controversy, and supported his opinions with Ciceronian action and flaming eyes. Our road from thence to Staines was through Windsor Forest and Park, &c. and was a very agreeable drive. We slept last night at Barkway, where we learnt that Pembroke was a sober, staid college, and nothing but solid study there. I find, indeed, we are to be grave in apparel, as even a silver button is not allowed to sparkle along our quadrangles, &c.; so that my hat is soon to be stripped of its glories, in exchange for a plain loop and button. . . . .

[Taylor and Pringle (eds.): *Correspondence of William Pitt*, IV, 287 ff.]

ALEXANDER POPE *50, †82

AI IQ 160 AII IQ 170

(See pp. 643 ff.)

"When I was about twelve," Pope relates, "I wrote a kind of play which I got to be acted by my school-fellows. It was a number of speeches from the *Iliad* tacked together with verses of my own."

[Carruthers: *Memoirs of Pope,* I, 17]

The following ode was written at the age of 12:

ODE TO SOLITUDE

Happy the man, whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with bread,
Whose flocks supply him with attire,
Whose trees in summer yield him shade,
In winter fire.

Blest, who can unconcern'dly find
Hours, days, and years slide soft away,
In health of body, peace of mind,
Quiet by day.

Sound sleep by night; study and ease,
Together mixt; sweet recreation;
And innocence, which most does please
With meditation.

Thus let me live, unseen, unknown,
Thus unlamented let me die,
Steal from the world, and not a stone
Tell where I lie.

[*Ibid.,* II, 9]

At 13 Pope began an epic poem which in two years he extended to 4,000 lines. It was never finished and was later destroyed.

[Symonds (Paston): *Mr. Pope, His Life and Times,* I, 6]

At 15 the young poet was engaged on *Pastorals,* a work which appeared six years later. His *Essay on Criticism,* written when he was 21, was pronounced by Dr. Johnson one of its author's greatest works.

[Courthope: Life of Alexander Pope, in *Works,* V, 45]

W. H. PRESCOTT *177, †321

AI IQ 130 AII IQ 135

(See pp. 366 ff.)

At 15 years, 4 months Prescott wrote the following letter to his father describing a college examination:

DEAR FATHER, I now write you a few lines to inform you of my fate. Yesterday at eight o'clock I was ordered to the President's, and there, together with a Carolinian, Middleton, was examined for Sophomore. When we were first ushered into their presence, they looked like so many judges of the Inquisition. We were ordered down into the parlor, almost frightened out of our wits, to be examined by each separately; but we soon found them quite a pleasant sort of chaps. The President sent us down a good dish of pears, and treated us very much like gentlemen. It was not ended in the morning; but we returned in the afternoon, when Professor Ware examined us in Grotius *de Veritate*. We found him very good-natured, for I happened to ask him a question in theology, which made him laugh so that he was obliged to cover his face with his hands. At half-past three our fate was decided, and we were declared "Sophomores of Harvard University."

As you would like to know how I appeared, I will give you the conversation, *verbatim*, with Mr. Frisbie, when I went to see him after the examination. I asked him, "Did I appear well in my examination?" Answer "Yes." Question. "Did I appear *very* well, Sir?" Answer. "Why are you so particular, young man? Yes, you did yourself a great deal of credit. . . . . "

[Ticknor: *Life of W. H. Prescott*, pp. 13–14]

JEAN RACINE *45, †74

AI IQ 135 AII IQ 150

(See pp. 430 f.)

Before he was 19 Racine wrote many Latin verses and a number of odes in French. The following lines are from one of the odes of this period:

Je vois les tilleuls et les chênes,
Ces géants de cent bras armés,
Ainsi que d'eus-mêmes charmés,
Y mirer leurs têtes hautaines.
Je vois aussi leurs grands rameaux
Si bien tracer dedans les eaux
Leur mobile peinture,
Qu'on ne sait si l'onde en tremblant
Fait trembler leur verdure,
Ou plutôt l'air même et le vent. . . . .

[Louis Racine: "Memoires sur la vie de Jean Racine," in *Oeuvres complètes de Racine*, VIII, 220–223]

ERNEST RÉNAN *256, †467

AI IQ 150 AII IQ 160

(See pp. 595 f.)

At the age of 6 Rénan declared his ambition to be a writer of books.

[Mott: *Ernest Rénan*, p. 5]

At 16 he wrote, among other works, a hymn to the Virgin, in Greek.

[Espenasse: *Life of Ernest Rénan*, pp. 24 ff.]

C. A. SAINTE-BEUVE *213, †378

AI IQ 145 AII IQ 155

(See pp. 549 ff.)

A letter written by Sainte-Beuve at 14, or possibly 15, has been translated as follows:

My Dear Friend: I think of you unceasingly and being separated from my family, too, I feel more than ever the need of a friend, and can find none like you. I cannot recall without a sweet sensation those short walks we used to take on the sand, relaxing so agreeably our bodies and our minds. The *pension* where I am is not in the least like M. Blériot's, but the master's son is an excellent young man and not lacking in knowledge. I am glad you have not forgotten me. . . . . I am very fond of our professor at the *lycée*. I don't think anybody could teach a class better than he does. We are translating, in Greek, Homer, the second book of the *Iliad*, the *Life of Cicero*, by Plutarch, and the Gospels; in Latin, Sallust's *Jugurthine War*, the *Thoughts of Cicero*, and Virgil, third book of the *Aeneid*. . . . .

[Harper: *Charles-Augustin Sainte-Beuve*, p. 65]

GEORGE SAND (AURORE DUPIN) *100, †173

AI IQ 150 AII IQ 173

(See pp. 596 ff.)

George Sand began writing at the age of 12. At 13 she busied herself extensively in her day dreams with an imaginary hero named Corambé, composing, she says, a thousand cantos, but without writing a line of them.

[Sand: *Histoire de ma vie*, I, 19]

Before the age of 16 she wrote a religious novel and a pastoral. Both were destroyed. The novel covered about a hundred pages.

[*Ibid.*]

FRIEDRICH W. SCHELLING *88, †154

AI IQ 175 AII IQ 180

(See pp. 678 ff.)

Beginning at the age of 10 Schelling wrote many Latin verses and, before he was 15, several long Latin poems. For his Master's degree, at 17, he wrote a thesis on the origin and development of the first part of the book of Genesis, in which he shows acquaintance with Kant, Leibnitz, Lucretius, and Herder. His first published work, written at 17, was on the myths, historical legends, and philosophies of the ancient world. His second publication, *On the Possibility of a Philosophical System*, was written at 19. Numerous other essays soon followed this one into print.

[Plitt (ed.): *Aus Schelling's Leben in Briefen*, Vol. I]

FRIEDRICH SCHILLER *46, †75

AI IQ 140 AII IQ 155

(See pp. 487 ff.)

Before the age of 11 years Schiller was writing Latin verses. At 12 he wrotę two tragedies in German, which, however, have been lost. At 13 he wrote a poem and an epic. His first poems to appear in print were published when he was 17. The epoch-making drama, *Die Räuber,* was begun when he was 19.

[Düntzer: *Schiller's Leben*]

FRIEDRICH SCHLEIERMACHER *138, †254

AI IQ 150 AII IQ 145

(See pp. 599 ff.)

Schleiermacher wrote at 14 to his sister:

You are sorry to have been disturbed in your blissful tranquility, and to a certain extent I can agree with you; but, dear sister, duty is duty, and we ought ever to do it cheerfully. I think, that though you bustle about in the house and garden from five o'clock in the morning until ten in the evening, you may be equally safe, and feel yourself equally near to the Saviour, as in the tranquil state of inactivity (if you will allow me the expression) which you enjoyed in Gnadenfrei. . . . . "

[Schleiermacher: *The Life of Schleiermacher,* etc. (Rowan tr.) I, 33]

WALTER SCOTT *14, †27

AI IQ 150 AII IQ 155

(See pp. 602 ff.)

The following translation from the Latin, written by Scott at the age of 11, was carefully preserved by his mother in a cover which she had inscribed, "My Walter's first lines, 1782":

In awful ruins Aetna thunders nigh,
And sends in pitchy whirlwinds to the sky
Black clouds of smoke, which, still as they aspire,
From their dark sides there bursts the glowing fire;
At other times huge balls of fire are toss'd,
That lick the stars, and in the smoke are lost:
Sometimes the mount, with vast convulsions torn,
Emits huge rocks, which instantly are borne
With loud explosions to the starry skies,
The stones made liquid as the huge mass flies,
Then back again with greater weight recoils,
While Aetna thundering from the bottom boils.

[Lockhart: *Memoirs of Sir Walter Scott,* p. 129]

The following lines, "On a Thunder Storm," were written when the poet was 12 years old:

Loud o'er my head though awful thunders roll,
And vivid lightnings flash from pole to pole,
Yet 'tis thy voice, my God, that bids them fly,
Thy arm directs those lightnings through the sky.
Then let the good thy mighty name revere,
And hardened sinners thy just vengeance fear.

[Lockhart: *Memoirs of Sir Walter Scott,* p. 131]

RICHARD SHERIDAN *203, †361

AI IQ 130, AII IQ 145

(See pp. 375 f.)

The following is from the first letter of Richard Sheridan which has been preserved. It was written when the future dramatist was 14:

Dear Uncle, As it is not more than three weeks to the holydays, I should be greatly obliged to you, if you could get me some new cloaths as soon as possible, for those which I have at present are very bad and as I have no others; I am almost ashamed to wear them on a sunday. I fancy I shall spend my holydays again at Harrow, for I have not seen nor heard from Mr. Akenhead since August. Though I had rather stay at Harrow than go to Richmond. . . . .

[Rae: *Sheridan, a Biography,* I, 72–73]

EDMUND SPENSER *143, †272

AI IQ 135 AII IQ 145

(See p. 436)

Spenser as a youth made a number of poetic translations of considerable merit. The exact date is in doubt, but they were probably composed when the poet was 16. At 18 (or 19) he published a volume, *Poems of the World's Vanity.* One of his translations, from the *Visions of du Bellay,* begins as follows:

I

It was the time when rest, the gift of Gods,
Sweetly sliding into the eyes of men,
Doth drowne in the forgetfulnesse of slepe
The carefull trauailes of the painefull day:
Then did a ghost appeare before mine eyes,
On that great riuers bank that runnes by Rome;
And, calling me then by my propre name,
He bade me vpwarde vnto heaven looke:
He cride to me; and, loe, (quod he) beholde
What vnder this great Temple is containde;
Loe, all is nought but flying vanitie.
So I, knowing the worldes vnstedfastnesse,
Sith onely God surmountes the force of tyme,
In God alone do stay my confidence.

[Todd: *The Works of Edmund Spencer,* VII, 526]

MADAME DE STAËL *94, †164

AI IQ 155 AII IQ 160

(See pp. 618 ff.)

When she was 19 Germain Necker (afterward Madame de Staël) wrote three short tales which were later published. At 20 she wrote and published a prose comedy in three acts, *Sophie.*

[Saussure: "Notice sur la vie, etc., de Madame de Staël" in *Mémoires de Madame de Staël*]

TORQUATO TASSO *48, †78

AI IQ 160 AII IQ 155

(See pp. 645 ff.)

Tasso is said to have begun the study of grammar at the age of 3! At 9 (or 10) he made public orations and composed some pieces of poetry, of which the style is reported to have retained nothing of puerility.

[Hoole: The Life of Tasso in *English Poets,* XXI, 393]

When Tasso was 9 years old his mother went to a convent and the boy was sent to his father. He addressed these lines to his mother on leaving her [translation]:

Relentless Fortune in my early years
Removes me from a mother's tender breast:
With sighs I call to mind the farewell tears
That bath'd her kisses when my lips she press'd!
I hear her pray'rs with ardour breath'd to Heaven,
Aside now wafted by the devious wind;
No more to her unhappy son 'tis given
Th' endearments of maternal love to find!
No more her fondling arms shall around me spread,
Far from her sight reluctant I retire,
Like young Camilla or Ascanius, led
To trace the footsteps of my wandering sire!

[*Ibid.*, 394]

ALFRED TENNYSON *76, †136

AI IQ 155 AII IQ 160

(See pp. 621 ff.)

Tennyson first attempted to write poetry when he was about 8 years old. At 12 he began an epic and wrote some 6,000 lines, sometimes as many as 70 lines at a sitting. "I never felt myself more truly inspired." At 14 he wrote a drama in blank verse. Between 15 and 17 he wrote 42 poems, which were published in *Poems by Two Brothers.*

The following is from a letter written to his aunt when he was only 12 years old:

My Dear Aunt Marianne,

When I was at Louth you used to tell me that you should be obliged to me if I would write to you and give you my remarks on works and authors. I shall now fulfil the promise which I made at that time. Going into the library this morning, I picked up *Sampson Aganistes,* on which (as I think it is a play you like) I shall send you my remarks. The first scene is the lamentation of Sampson, which possesses much pathos and sublimity. This passage [here quotes four lines] puts me in mind of that in Dante which Lord Byron has prefixed to his *Corsair,* "Nessun maggior dolore, Che ricordarse del tempo felice, Nella miseria." His complaint of his blindness is particularly beautiful. [Here he quotes 16 lines.] . . . . To an English reader the metre of the Chorus may seem unusual, but the difficulty will vanish, when I inform him that it is taken from the Greek. In line 133 there is this expression, "Chalybean tempered steel." The Chalybes were a nation among the ancients very famous for the making of steel, hence the expression "Chalybean," or peculiar to the Chalybes: in line 147 "the Gates of Azzar"; this probably, as Bp. Newton observes, was to avoid too great an alliteration, which the "Gates of Gaza" would have caused, though (in my opinion) it would have rendered it more beautiful: and (though I do not affirm it as a fact) perhaps Milton gave it that name for the sake of novelty, as all the world knows he was a great pedant. . . . .

[Tennyson: *Alfred Lord Tennyson,* I, 7–9]

The following is from a poem written at 14 (or 15) after reading *The Bride of Lammermoor:*

THE BRIDAL

The lamps were bright and gay
On the merry bridal-day,
When the merry bridegroom
Bore the bride away!
A merry, merry bridal,
A merry bridal-day!
And the chapel's vaulted gloom
Was misted with perfume.
"Now, tell me, mother, pray
Why the bride is white as clay,
Although the merry bridegroom
Bears the bride away."

[*Ibid.,* 26–28]

WILLIAM MAKEPEACE THACKERAY *190, †551

AI IQ 135 AII IQ 140

(See pp. 437 f.)

The following are extracts from a letter to his mother, written a few days before his 8th birthday:

. . . . I saw a bird's nest with young ones in it, and a beautiful honeysuccle bush, and the Robbins in another place.

This has been Neptune day with me: I call it so, because I go into the water and am like Neptune. . . . .

I am grown a great boy; I am three feet eleven inches high. I learn some poems, which you was very fond of, such as the "Ode on Music." . . . .

I have lost my cough, and am quite well, strong, saucy, and hearty,

and can eat grandmama's gooseberry-pyes famously, after which I drink yours and my papa's good health and speedy return.

[Ritchie, in Introduction to *The Newcomes*, in Thackeray's *Works*, Biographical Edition]

Thackeray's first published poem was "An Irish Melody," composed between the ages of 14 and 17. The first two stanzas follow:

Mister Sheil into Kent has gone
On Penenden Heath you'll find him;
Nor think you that he came alone,
There's Doctor Doyle behind him.

"Men of Kent," said the little man,
"If you hate Emancipation,
You're a set of fools." He then began
A cut and dry oration.

[Benjamin: *The Life of William Makepeace Thackeray*, I, 46]

LUDWIG TIECK *245, †435

AI IQ 155 AII IQ 155

(See pp. 623 ff.)

Tieck at 11 wrote a poem in honor of his teacher's marriage. In his teens he wrote numerous plays and pastorals. A fairy play, *The Fawn*, was later published.

[Köpke: *Ludwig Tieck*]

FRIEDRICH AUGUST WOLF *272, †480

AI IQ 155 AII IQ 165

(See pp. 626 ff.)

At 12 Wolf wrote a poem which his teacher thought was largely copied. The boy was hurt by the implied accusation and asked to be locked in a room and given a subject upon which to compose. The verses which resulted caused the teacher to embrace his pupil and ask pardon for his imputation.

[Körte: *Leben und Studien Friedrich August Wolf*, I, 19]

LOPE DE VEGA *125, †232

AI IQ 140 AII IQ 145

(See pp. 494 f.)

De Vega is said to have dictated verses at the age of 5 years, before he knew how to write. When about 10 years of age he translated Claudian's Latin poems, *De Raptu Proserpinae*, into Castilian verse.

[Rennert: *Life of Lope de Vega*, p. 7]

Lope's first play, a pastoral, *The True Lover*, was written at 14, and before the author was 20 he was a well-known poet.

[*Ibid.*]

VOLTAIRE *2, †4
AI IQ 170 AII IQ 180
(See pp. 669 ff.)

Voltaire says that he wrote verses from his cradle. At 12 he wrote a tragedy, which he burned. His first published poem was written at the same age, his second at 15.

On one occasion when Voltaire was 12 years old, he was amusing himself in school by throwing and catching a snuffbox. Father Porée took it from him and required him to redeem it by composing some verses. He produced the following:

SUR UNE TABATIÈRE CONFISQUÉE

Adieu, ma pauvre tabatiére;
Adieu, je ne te verrai plus;
Ni soins, ni larmes, ni prière,
Ne te rendront à moi; mes efforts sont perdus.
Adieu, ma pauvre tabatière;
Adieu, doux fruit de mes écus!
S'il faut à prix d'argent te racheter encore,
J'irai plutôt vider les trésors de Plutus.
Mais ce n'est pas ce dieu que l'on veut que j'implore;
Pour te revoir, hélas! il faut prier Phébus.
Qu'on oppose entre nous une forte barrière!
Me demander des vers! hélas! je n'en puis plus.
Adieu, ma pauvre tabatière;
Adieu, je ne te verrai plus.

[Parton: *Life of Voltaire,* I, 42]

RICHARD WAGNER *188, †337
AI IQ 135 AII IQ 150
(See pp. 440 ff.)

Wagner's poem in commemoration of a dead schoolfellow, written at 11, was accepted and published after being cleared of bombast by a tutor. Its merits were well-constructed and well-rhymed verses.

[Wagner: *My Life,* I, 17]

For three months (1837) Wagner lived in a small garret alone, with little nourishment except thin Saxon coffee, doing little but write verses. Here the outlines of a stupendous tragedy were formed in his mind. He had previously acquired enough knowledge of English to read Shakespeare, and had made a metrical translation of Romeo's monologue.

[*Ibid.,* 24]

At 15 Wagner completed the tragedy *Leubald und Adelaid* which he had begun the year before. The drama was a combination of Shakespeare's *Hamlet, King Lear,* and *Macbeth,* and Goethe's *Götz von Berlichingen.* The style of the work was characterized as "grandiloquent and bombastic."

[*Ibid.,* 31]

GEORGE WASHINGTON *10, †19

AI IQ 125 AII IQ 135

(See pp. 345 f.)

The following stanzas, excerpts from two poems preserved in his diary, were written by Washington when he was about 15 or 16 years old:

Oh Ye Gods why should my Poor Resistless Heart
Stand to oppose thy might and Power
At Last surrender to cupids feather'd Dart
And now lays Bleeding every Hour.

. . . . . .

From your bright sparkling Eyes I was undone;
Rays, you have; more transperent than the Sun,
Amidst its glory in the rising Day
None can you equal in your bright array;
Constant in your calm and unspotted Mind;
Equal to all, but will to none Prove kind,
So knowing, seldom one so Young, you'l Find.

[Ford: *The True George Washington*, pp. 86 ff.]

The following is a typical selection from the diary which Washington kept when he was 16:

Wednesday, 23d. Raind till about two o'clock & cleard, when we were agreeably surprized at ye sight of thirty odd Indians coming from war with only one scalp. We had some Liquor with Us of which we gave them Part, it elevating their spirits, put them in ye humor of Dauncing, of whom we had a War Daunce. There manner of Dauncing is as follows, viz.: They clear a Large Circle & make a great Fire in ye middle. Men seats themselves around it. Ye speaker makes a grand speech, telling them in what manner they are to daunce. After he has finished ye best Dauncer jumps up as one awaked out of a sleep, & Runs & Jumps about ye Ring in a most comicle manner. He is followed by ye Rest. Then begins there Musicians to Play. Ye Musick is a Pot half full of water, with a Deerskin stretched over it as tight as it can, & a goard with some shott in it to rattle & a Piece of an horse's tail tied to it to make it look fine. Ye one keeps ratling and ye others drumming all ye while, while ye others is Dauncing. . . . .

[Ford (ed.): *The Writings of George Washington*, I, 3]

CARL MARIA VON WEBER *204, †362

AI IQ 135 AII IQ 145

(See pp. 443 ff.)

The first known writing of Weber was scribbled in an album when he was 5 years, 9 months old. It runs as follows (translated):

Dearest Elsie. Always love your sincere friend Carl von Weber; in the sixth year of his age; Nuremberg, the 10th September, 1792.

[Simpson: *Carl Maria von Weber*, I, 16]

DANIEL WEBSTER *105, †183

AI IQ 145 AII IQ 150

(See pp. 551 ff.)

Webster at 16 wrote verses which are said to have been quite ordinary, though some of his companions thought he ought to become a poet. At 17 he was considered by far the best writer and speaker in his college. At 18 he delivered the Fourth of July oration in the town of Hanover. The following is an excerpt from this address:

COUNTRYMEN BRETHREN AND FATHERS:

We are now assembled to celebrate an anniversary, ever to be held in dear remembrance by the sons of Freedom. Nothing less than the birth of a nation—nothing less than the emancipation of three millions of people from the degrading chains of foreign dominion, is the event we commemorate.

Twenty-four years have now elapsed since these United States first raised the standard of Liberty, and echoed the shouts of Independence.

Those of you who were then reaping the iron harvest of the martial field, whose bosoms then palpitated for the honor of America, will, at this time, experience a renewal of all that fervent patriotism; of all those inscrutable emotions which then agitated your breasts. As for us, who were either then unborn, or not far enough advanced beyond the threshold of existence, to engage in the grand conflict for Liberty, we now most cordially unite with you, to greet the return of this joyous anniversary, to welcome the return of the day which gave us Freedom, and to hail the rising glories of our country!

[Frost: *Life of Daniel Webster,* pp. 89–90]

CHRISTOPH M. WIELAND *152, †278

AI IQ 160 AII IQ 160

(See pp. 647 f.)

Wieland began composing verses at the age of 6 and wrote them down by the hundreds. At 12 he began an epic and wrote many Latin verses, one of 600 lines. His first important poem, *Die Natur der Dinge,* was published when he was 17. This was a didactic poem in six books. The same year he wrote *In Praise of Love,* and began an epic, *Hermann,* of which he completed five cantos. Many other poems followed soon afterward.

[Ofterdinger: *Wieland's Leben u. Wirken in Schwaben u. in der Schweiz*]

WILLIAM WORDSWORTH *40, †67

AI IQ 150 AII IQ 155

(See pp. 605 ff.)

The following is part of a poem of 112 lines written by Wordsworth at the age of 15 as a school exercise:

And has the Sun his flaming chariot driven
Two hundred times around the ring of heaven,
Since Science first, with all her sacred train,
Beneath yon roof began her heavenly reign?
While thus I mused, methought, before mine eyes
The Power of EDUCATION seemed to rise;
Not she whose rigid precepts trained the boy
Dead to the sense of every finer joy;
Nor that vile wretch who bade the tender age
Spurn Reason's law and humour Passion's rage;
But she who trains the generous British youth
In the bright paths of fair majestic Truth.

[Knight(ed): *The Poetical Works of William Wordsworth*, I, 283]

CHARLOTTE BRONTË *GROUP B, †740

BI IQ 155 BII IQ 155

(See pp. 734 ff.)

Charlotte Brontë and her gifted sisters were devoted authors when they were children. By the age of 10 Charlotte was writing stories of 20,000 words. Numerous plays and verses followed. The following is a letter written at the age of 13 years, 3 months, to a magazine editor:

Sir,—It is well known that the Genii have declared that unless they perform certain arduous duties every year, of a mysterious nature, all the worlds in the firmament will be burnt up, and gathered together in one mighty globe, which will roll in solitary grandeur through the vast wilderness of space, inhabited only by the four high princes of the Genii, till time shall be succeeded by Eternity; and the impudence of this is only to be paralleled by another of their assertions, namely, that by their magic might they can reduce the world to a desert, the purest waters to streams of livid poison, and the clearest lakes to stagnant waters, the pestilential vapours of which shall slay all living creatures, except the blood-thirsty beast of the forest, and the ravenous bird of the rock; but that in the midst of this desolation the palace of the Chief Genii shall rise sparkling in the wilderness, and the horrible howl of their war-cry shall spread over the land at morning, at noontide and night; but that they shall have their annual feast over the bones of the dead, and shall yearly rejoice with the joy of victors. I think, sir, that the horrible wickedness of this needs no remark, and therefore I haste to subscribe myself, &c.

July 14, 1829.

[Gaskell: *The Life of Charlotte Brontë.* Hayworth (ed.) *Life and Works of Sisters Brontë*, VII, 91–92]

GEORGE ELIOT (MARY ANN EVANS) *GROUP B, †719

BI IQ 150 BII IQ 150

(See pp. 732 ff.)

As a girl George Eliot seems to have been too busy with reading and study to do much writing. At 18 she said:

I am generally in the same predicament with books as a glutton with his feast, hurrying through one course that I may be in time for the next, so not relishing or digesting either.

And again at 19:

My mind presents an assemblage of disjointed specimens of history, ancient and modern; scraps of poetry picked up from Shakespeare, Cowper, Wordsworth, and Milton; newspaper topics; morsels of Addison and Bacon, Latin verbs, geometry, etymology, and chemistry; reviews and metaphysics, —all arrested and petrified and smothered by fast-thickening everyday accession of actual events, relative anxieties, and household cares and vexations.

[Cross (ed.): *George Eliot's Life as Related in her Letters and Journals*, I, 36, 49]

WILLIAM LLOYD GARRISON *GROUP B, †592
BI IQ 115 BII IQ 130
(See pp. 716 ff.)

The following is from Garrison's first published article, written when the author was 16 years of age:

The truth is, however, women in this country are too much idolized and flattered; therefore they are puffed up and inflated with pride and self-conceit. They make the men to crouch, beseech, and supplicate, wait upon and do every menial service for them to gain their favor and approbation; they are, in fact, completely subservient to every whim and caprice of these changeable mortals. Women generally feel their importance, and they use it without mercy.

A few sentences follow from one of Garrison's articles (written at 17) on the Holy Alliance:

It is the grand engine of destruction by which to extirpate the rights and privileges of nations, and to dig up and destroy the seeds which Liberty has planted. . . . . It is a combination of military despots, brought together and cemented with the atrocious intention of shackling the fairest portions of the globe with manacles that ages cannot decay or sever.

[Phillips: *William Lloyd Garrison*, I, 43, 47]

NATHANIEL HAWTHORNE *GROUP B, †538
BI IQ 140 BII IQ 135
(See pp. 726 ff.)

The following is part of a letter written at 9 years (punctuated by the biographer):

DEAR UNCLE

I hope you are well, and I hope Richard is too. My foot is no better. Louisa has got so well that she has begun to go to school, but she did not go this forenoon because it snowed. Mama is going to send for Doctor Kitridge to-day, when William Cross comes home at 12 o'clock, and maybe he will do some good, for Doctor Barstow has not, and I don't know as Dr. Kitridge will. It is about 4 weeks yesterday since I have been to school, and I don't know but it will be 4 weeks longer before I go again.

The following verses were written at 12 years, 7 months:

MODERATE VIEWS

With passions unruffled, untainted by pride,
By reason my life let me square;
The wants of my nature are cheaply supplied,
And the rest are but folly and care.

How vainly through infinite trouble and strife,
The many their labours employ,
Since all, that is truly delightful in life
Is what all, if they please may enjoy.

[Stearns: *The Life and Genius of Nathaniel Hawthorne*, p. 40–42]

HUGH MILLER *GROUP B, †696

BI IQ 135 BII IQ 130

(See pp. 722 ff.)

Two stanzas of a poem written by Miller at 13:

Yes, oft I've said, as oft I've seen
The men who dwell its hills among,
That Morven's land has ever been
A land of valour, worth, and song.

But ignorance, of darkness dire,
Has o'er that land a mantle spread;
And all untuned and rude the lyre
That sounds beneath its gloomy shade.

[Miller: *My Schools and Schoolmasters, An Autobiography*, p. 113]

When at 16 Miller quarreled with his teacher over the spelling of a word and left school, never to return, he avenged himself by writing some satiric verses, entitled "The Pedagogue," of which a few lines follow:

In character we seldom see
Traits so diverse meet and agree:
Can the affected mincing trip,
Exalted brow, and pride-pressed lip,
In strange incongruous union meet,
With all that stamps the hypocrite?
We see they do: but let us scan
Those secret springs which move the man.

[*Ibid.*, 145–146]

JOHN HENRY NEWMAN *GROUP B, †732

BI IQ 155 BII IQ 155

(See pp. 736 ff.)

At 9 Newman kept a diary in which he recorded happenings, moral axioms, and original verses. At 11 he wrote a mock drama.

At 14 he wrote a burlesque opera and started two periodicals, *Spy* and *Anti-Spy,* which ran for more than half a year. At 15 or 16 his paper *The Beholder* (all his own writing) ran through forty numbers and one hundred sixty octavo pages. His first publication, at 17, was a poem.

[Mozley: *Letters and Correspondence of John Henry Newman*]

HANS CHRISTIAN OERSTED *GROUP B, †523

BI IQ 140 BII IQ 160

(See pp. 729 ff.)

At 12 Oersted translated several odes of Horace and a part of the *Henriade* into Danish.

["Memoirs of Oersted" in *Smithsonian Institution Annual Report,* 1868]

ROBERT SOUTHEY *GROUP B, †520

BI IQ 155 BII IQ 155

(See pp. 738 ff.)

Southey began to write verses at 9 years, *Epics of the Trojan Brutus, Egbert, King Richard III,* etc. Within six weeks after his 19th birthday he wrote *Joan of Arc,* an epic poem in twelve books. Before he was 20 he burned more than ten thousand of his verses, according to his own testimony.

[Dowden: *Southey*]

CHARLES SUMNER *GROUP B, †772

BI IQ 140 BII IQ 145

(See pp. 731 f.)

Between 13 and 15 Sumner wrote a number of Latin verses and took several prizes for Latin translations. At 14 he wrote a compendium of English history which filled a manuscript book of eighty-six pages.

[Pierce: *Memoirs and Letters of Charles Sumner*]

INDEXES

INDEX OF GENIUSES[1]

[Case-study references appear in *italic* type in this index; discussion and analysis of IQ appear in roman *with asterisk;* page references for the tables appear in roman figures *in parentheses* after each table number.]

Adams, John, Table 12A (facing 60), 102,* Table 25 (102), *273 f.*, 649

Adams, John Quincy, Table 12A (facing 60), Table 34 (140), 141,* 216, 368, *649 ff.*

Addison, Joseph, Table 12A (facing 60), Table 26 (105), 216, *306 f.*, 494, 622

Agassiz, J. Louis, Table 12A (facing 60), 117,* Table 29 (118), Table 42 (170), Table 46 (195), *449 ff.*

Alberoni, Guilio, Table 12A (facing 60), Table 23 (93), *237 f.*

Alfieri, Vittorio, Table 12A (facing 60), Table 28 (113), *379 f.*, 408

Ali Weli Zade, Table 12A (facing 60), Table 25 (102), 103,* *274 f.*

Andersen, Hans Christian, Table 12B (page seven facing 60), *714 ff.*

Andrewes, Lancelot, Table 12A (facing 60), Table 28 (113), *382*

Arago, D. F., Table 12A (facing 60), Table 30 (122), 123,* Table 42 (170), Table 46 (195), 232, *499 ff.*

Ariosto, Ludovico, Table 12A (facing 60), Table 26 (105), *307 f.*, 386

Arnauld, Antoine, Table 12A (facing 60), Table 28 (113), 217, *383*

Arouet, François Marie (*see* Voltaire)

Atterbury, Francis, Table 12A (facing 60), 102,* Table 25 (102), *275 f.*

Bach, J. Sebastian, Table 12A (facing 60), Table 26 (105), 106,* *309 f.*

Bacon, Francis, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), Table 43 (181), Table 46 (195), 218, *501 f*, 598, 704

Bailly, J. S., Table 12A (facing 60), Table 30 (122), 124,* *502 f.*

Balzac, Honoré de, Table 12A (facing 60), Table 27 (110), *347 f.*

Baxter, Richard, Table 12A (facing 60), Table 28 (113), 115,* *384 f.*

Bayle, Pierre, Table 12A (facing 60), Table 28 (113), 145, *385 f.*

Beaumarchais, Pierre A. C. de, Table 12A (facing 60), Table 29 (118), *451 f.*

Beethoven, Ludwig van, Table 12A (facing 60), Table 28 (113), 171, Table 42 (171), 218, *386 ff.*, 442

Bentham, Jeremy, Table 12A (facing 60), 149,* Table 37 (149), 150,* 152, *683 ff.*, 710, 761

Bentley, Richard, Table 12A (facing 60), Table 29 (118), 154,* *452 ff.*, 762

Béranger, Pierre Jean de, Table 12A (facing 60), 96, Table 24 (96), 97,* *258 ff.*, 762

[1] For General Index, see page 831.

Berkeley, George, 7, Table 12A (facing 60), Table 31 (126), 128,* 130,* 159,* *557 f.*, 763

Bernadotte, Jean Baptiste (Charles XIV), 75, Table 12A (facing 60), Table 24 (96), *261 f.*

Berzelius, John Jacob, Table 12A (facing 60), Table 25 (102), 103,* 121, *276 ff.*

Beza, Théodore de, Table 12A (facing 60), Table 26 (105), *310 f.*, 763

Bichat, Marie François, Table 12A (facing 60), 117, 118,* Table 29 (118), 119, 130, *454*

Blake, Robert, Table 12A (facing 60), Table 26 (105), *311 f.*

Blücher, Gebhard L. von, Table 12A (facing 60), Table 23 (93), 94,* 216, *238*

Boerhaave, Hermann, Table 12A (facing 60), Table 29 (118), *455 f.*, 602, 676, 763

Bolivar, Simon, Table 12A (facing 60), Table 26 (105), *312 f.*

Bonaparte (*see* Napoleon)

Bossuet, Jacques B., Table 12A (facing 60), Table 33 (135), 136,* 371, 528, 598, *631 f.*, 763

Boyle, Robert, Table 12A (facing 60), Table 29 (118), 215, *456 ff.*, 764

Bright, John, Table 12A (facing 60), Table 26 (105), 111,* *313 ff.*, 764

Brontë, Charlotte, Table 12B (page seven facing 60), *734 ff.*, 812

Brougham, Henry P., Table 12A (facing 60), 137,* Table 42 (170), Table 46 (195), Table 33 (135), *632 ff.*, 764

Buffon, Comte de (G. L. Leclerc), Table 12A (facing 60), 104,* Table 26 (105), *315*, 467, 493, 622

Bulwer-Lytton, Edward G., Table 12A (facing 60), 117,* Table 29 (118), 119, Table 42 (170), 215, *458 ff.*, 765

Bunsen, Christian K. J., Table 12A (facing 60), Table 31 (126), 129,* Table 42 (170), Table 43 (181), *558 ff.*, 766

Bunyan, John, Table 12A (facing 60), Table 22 (90), 90,* 216, *226 f.*, 622

Burke, Edmund, Table 12A (facing 60), Table 28 (113), Table 42 (171), Table 43 (181), Table 46 (195), *388 ff.*, 622, 674, 766

Burnet, Gilbert, Table 12A (facing 60), Table 30 (122), 123,* *504 f.*

Burns, Robert, Table 12A (facing 60), 109, 110,* 111,* Table 27 (110), Table 42 (171), Table 46 (194), *348 ff.*, 767

Byron, Lord (George Gordon), 7, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (170), Table 46 (194), 355, 368, 399, 460, 469, *560 ff.*, 622, 767

Calderón, de la Barca, Pedro, Table 12A (facing 60), Table 29 (118), *461 f.*, 768

Calvin, John, Table 12A (facing 60), Table 28 (113), Table 42 (171), Table 46 (195), *391 f.*

Camoëns, Luiz Vaz de, Table 12A (facing 60)

Campanella, Tommaso, Table 12A (facing 60), Table 30 (122), 125,* *505 f.*, 703, 704, 768

Candolle, Augustin P. de, Table 12A (facing 60), Table 29 (118), *462 ff.*

Canning, George, Table 12A (facing 60), Table 31 (126), 130,* Table 42 (170), Table 46 (195), *563 ff.*, 768

Canova, Antonio, Table 12A (facing 60), 109,* Table 27 (110),

111, Table 42 (171), Table 46 (194), 216, *351 f.*

Cardan, Jerome, Table 12A (facing 60), Table 28 (113), *392 ff.*, 703, 704, 769

Caritat (*see* Condorcet)

Carlyle, Thomas, Table 12A (facing 60), Table 29 (118), Table 42 (170), Table 46 (194), *464 ff.*, 769

Carnot, Lazare, Table 12A (facing 60), Table 31 (126), 128,* *565 f.*

Caron (*see* Beaumarchais)

Cavour, Camillo B., Count di, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (170), Table 46 (195), *567 ff.*, 770

Cervantes, Miguel de, Table 12A (facing 60), Table 22 (90), 91,* 92,* *227*, 495

Chalmers, Thomas, Table 12A (facing 60), Table 30 (122), 123,* Table 42 (170), Table 43 (181), Table 46 (195), *506 ff.*, 770

Channing, William Ellery, Table 12A (facing 60), Table 30 (122), 123,* Table 42 (170), Table 46 (195), *508 ff.*, 771

Chateaubriand, F. R. A., Vicomte de, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (170), 417, *569 ff.*, 598, 771

Chatham (*see* Pitt the Elder)

Chatterton, Thomas, Table 12A (facing 60), 142, 143, Table 35 (143), 144,* Table 42 (170), 171, Table 43 (181), Table 46 (194), *663 ff.*, 772

Chesterfield, Earl of (P. D. Stanhope), Table 12A (facing 60), Table 26 (105), *316 f.*

Churchill (*see* Marlborough)

Clarendon (George Villiers), Earl of, Table 12B (page seven facing 60), 685, *718 f.*

Clarke, Samuel, Table 12A (facing 60), Table 28 (113), 19, 29, *394 f.*

Clive, Robert, Table 12A (facing 60), 92,* 93,* Table 23 (93), *239 f.*

Cobbett, William, Table 12A (facing 60), Table 22 (90), *229 f.*

Cobden, Richard, Table 12A (facing 60), Table 25 (102), 103,* 104,* Table 42 (171), Table 43 (181), Table 46 (195), *278 f.*

Colbert, J. B., Table 12A (facing 60), 431

Coleridge, Samuel Taylor, 7, Table 12A (facing 60), 142,* 145,* Table 36 (145), Table 42 (170), Table 43 (181), Table 46 (194), 217, *672 ff.*, 772

Comte, I. A., Table 12A (facing 60), 128,* Table 31 (126), Table 42 (170), Table 46 (195), 217, *571 ff.*, 773

Condillac, Étienne B. de, Table 12A (facing 60)

Condorcet, Marquis de (M. J. A. N. Caritat), Table 12A (facing 60), 131,* Table 32 (131), 133,* *607 f.*, 773

Constant de Rebecque, H. B., Table 12A (facing 60), Table 34 (140), 141,* *651 ff.*, 773

Cook, James, Table 12A (facing 60), Table 22 (90), 216, *228 f.*, 322

Copernicus, Nicolas, Table 12A (facing 60), Table 22 (90), 91,* *230 f.*

Corneille, Pierre, Table 12A (facing 60), Table 27 (110), 136, 281, *353*, 697, 774

Cortez, Hernando, Table 12A (facing 60), Table 24 (96), 97,* *262 f.*, 774

Cousin, Victor, Table 12A (facing 60), Table 28 (113), 115,* Table 42 (170), Table 46 (195), *395 f.*, 774

Cowper, William, Table 12A (facing 60), Table 28 (113), *396 ff.*, 411, 622, 775

Cranmer, Thomas, Table 12A (facing 60), 102,* Table 25 (102), *279*

Cromwell, Oliver, Table 12A (facing 60), 93,* Table 23 (93), 94,* Table 42 (171), Table 43 (181), Table 46 (194), *240 f.*, 329, 504

Cuvier, Georges L., 7, Table 12A (facing 60), Table 32 (131), 132,*, 133, Table 42 (170), Table 46 (195), *608 ff.*, 775

D'Alembert, J. P. le R., Table 12A (facing 60), Table 31 (126), 128,* 131,* 358, 373, 500, 542, *573 f.*, 608

Danton, Georges J., Table 12A (facing 60), Table 30 (122), 123,* Table 42 (170), Table 43 (181), Table 46 (195), 433, *511 ff.*, 775

Darwin, Charles R., 12, Table 12A (facing 60), Table 28 (113), 115,* Table 42 (171), Table 46 (195), *398 ff.*

D'Aubigné (*see* Maintenon)

Davy, Humphry, 7, Table 12A (facing 60), 91, Table 31 (126), 129,* 146,* 147,* 159,* Table 42 (170), Table 46 (195), 277, 232, *574 ff.*, 776

DeFoe, Daniel, Table 12A (facing 60), Table 25 (102), 103,* *280 f.*, 525, 622

Descartes, Réné, Table 12A (facing 60), 82,* Table 31 (126), 128,* 151,* Table 42 (170), Table 46 (195), 302, 359, 377, 493, *577 f*, 690, 703, 704, 776

Dickens, Charles, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), *513 ff.*, 777

Diderot, Denis, Table 12A (facing 60), Table 31 (126), 128,* 358, *578 f.*

Disraeli, Benjamin, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), *515 f.*, 777

Drake, Francis, Table 12A (facing 60), 75, Table 22 (90), 95,* *231 f.*, 471

Dryden, John, Table 12A (facing 60), Table 26 (105), 275, 307, *317*, 335, 340, 341, 529, 708, 723, 778

Dumas, Alexandre (Pére), Table 12A (facing 60), 117,* Table 29 (118), 119,* 121,* *467 ff.*

Dupin, Aurore (*see* George Sand)

Dupin, André M. J. J., Table 12A (facing 60), Table 25 (102), 103,* *281 f.*, 778

Dürer, Albrecht, Table 12A (facing 60), Table 26 (105), *318*, 341

Eliot, George, Table 12B (page seven facing 60), *732 ff.*, 812

Emerson, Ralph Waldo, Table 12A (facing 60), 121, Table 30 (122), 122,* *517 ff.*, 778

Erasmus, Desiderius, Table 12A (facing 60), 112,* Table 28 (113), 115,* *400 f.*, 701, 779

Étienne, Charles G., Table 12A (facing 60), Table 28 (113), Table 42 (171), *401 ff.*, 779

Evans (*see* Eliot)

Faraday, Michael, Table 12A (facing 60), 87,* Table 22 (90), 91,* 216, *232 f.*, 779

Farragut, David G., Table 12A (facing 60), Table 25 (102), 103,* *282 ff.*

Fénelon, François, Table 12A (facing 60), 75, Table 30 (122), 124,* 417, *519 f.*, 779

Fichte, Johann G., Table 12A (facing 60), Table 30 (122), 124,*, 125,* Table 42 (170), Table 46 (195), *520 ff.*, 680, 756 f., 780

Fielding, Henry, Table 12A (facing 60), Table 25 (102), 103,* *284 f.*, 780

Fouché, Joseph, Table 12A (facing 60), Table 26 (105), Table 42 (171), *319*

Fox, Charles J., Table 12A (facing 60), 121,* 122,* Table 30 (122), Table 42 (170), Table 46 (195), *522 ff.*, 565, 674, 780

Fox, George, Table 12A (facing 60), Table 23 (93), 94,* 98,* *241 f.*

Franklin, Benjamin, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), *524 ff.*, 780

Franklin, John, Table 12A (facing 60), 112,* Table 28 (113), Table 42 (171), *403 f.*, 781

Fulton, Robert, Table 12B (page seven facing 60), *711 f.*

Galileo, Galilei, Table 12A (facing 60), Table 30 (122), 124,* 457, *526 ff.*, 704

Gambetta, Léon, Table 12B (page seven facing 60), *724 ff.*

Garibaldi, Giuseppe, Table 12A (facing 60), Table 25 (102), 103,* Table 42 (171), Table 46 (194), *285 f.*

Garrison, William Lloyd, Table 12B (page seven facing 60), *716 ff.*, 813

Gaskell, Mrs. (Elizabeth Cleghorn Stevenson), Table 12B (page seven facing 60), *712 f.*

Gassendi, Pierre, Table 12A (facing 60), Table 31 (126), 127,* *579 f.*, 781

Gay-Lussac, Joseph Louis, Table 12A (facing 60), Table 26 (105), 108,* Table 42 (171), Table 46 (195), *320*, 324

Gibbon, Edward, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), Table 46 (194), 408, 466, *528 ff.*, 618, 620, 622, 732, 739, 781

Gluck, Christopher, Table 12A (facing 60), Table 23 (93), *242 f.*

Goethe, Johann Wolfgang, vii, 7, 40, Table 12A (facing 60), 153,* 155,* 158,* Table 38 (153), 159, 162,* 163,* Table 42 (170), Table 43 (181), 217, 358, 405, 408, 417, 442, 445, 469, 538, 590, 625, 640, 681, *693 ff.*, 782

Goldsmith, Oliver, Table 12A (facing 60), Table 24 (96), 98,* 104,* *263 f.*, 606, 739

Grant, Ulysses S., Table 12A (facing 60), Table 23 (93), 94,* 95,* 98,* 105,* Table 42 (170), Table 46 (195), *243 f.*

Grimm, Jakob L., Table 12A (facing 60), Table 28 (113), 356, *404 ff.*

Grote, George, Table 12A (facing 60), Table 28 (113), 114,* 115,* *406 f.*

Grotius, Hugo, Table 12A (facing 60), 153,* Table 38 (153), 154,* 155,* 159,* 162,* 217, *699 ff.*, 783

Guicciardini, Francesco, Table 12A (facing 60), Table 25 (102), 103,* *287*

Guizot, François P. G., Table 12A (facing 60), Table 28 (113), Table 42 (170), Table 46 (194), *407 ff.*, 784

Haller, Albrecht, Table 12A (facing 60), 145,* Table 36 (145), 146,* 420, *675 ff.*, 784

Hamilton, Alexander, Table 12A (facing 60), 87,* Table 28 (113), Table 42 (171), 336, *409 f.*, 785

Hamilton, William, Table 12A (facing 60), Table 29 (118), 119,* *470 f.*, 785

Handel, George F., Table 12A (facing 60), Table 30 (122), 124,* *532 ff.*

Harvey, William, Table 12A (facing 60), Table 25 (102), 103,* *287 f.*

Hastings, Warren, Table 12A (facing 60), Table 28 (113), 397, *410 f.*

Hawthorne, Nathaniel, Table 12B (page seven facing 60), *726 ff.*, 813

Haydn, Joseph, Table 12A (facing 60), Table 25 (102), 103,* Table 42 (171), Table 43 (181), Table 46 (194), *288 ff.*, 300, 388, 444

Hegel, Georg W. F., 11, 14, Table 12A (facing 60), Table 31 (126), 128,* 130,* Table 42 (171), Table 46 (195), 355, 492, *580 ff.*, 596, 679, 680, 753, 758, 785

Heine, Heinrich, Table 12A (facing 60), Table 27 (110), *354 ff.*, 786

Helvetius, Claude Adrien, Table 12A (facing 60), Table 26 (105), 108,* *321 f.*

Herder, Johann Gottfried, Table 12A (facing 60), 109,* 110,* 162, Table 27 (110), *356 ff.*, 596, 786

Herschel, William, Table 12A (facing 60), Table 30 (122), 124,* 125,* Table 42 (171), 399, *530 ff.*

Hobbes, Thomas, Table 12A (facing 60), Table 29 (118), *471 f.*, 786

Hogarth, William, Table 12A (facing 60), Table 23 (93), Table 42 (171), Table 43 (181), Table 46 (194), *244 f.*

Holberg, Ludwig, Table 12B (page seven facing 60), *719 f.*

Hugo, Victor, Table 12A (facing 60), Table 31 (126), 129,* 130,* Table 42 (170), Table 46 (194), 215, 551, *582 ff.*, 595, 640, 786

Humboldt, Alexander, Table 12A (facing 60), Table 29 (118), 119,* 121,* Table 42 (170), 232, 216, 324, *472 ff.*, 787

Humboldt, Wilhelm, Table 12A (facing 60), Table 30 (122), 124,* 216, 450, *534 ff.*

Hume, David, Table 12A (facing 60), Table 32 (131), 132,* 133,* 218, 435, 494, *612 f.*, 787

Hunter, John, Table 12A (facing 60), Table 23 (93), 94,* 98,* *245 f.*, 322

Huygens, Christian, Table 12A (facing 60), Table 27 (110), *358 f.*, 420, 788

Irving, Washington, Table 12A (facing 60), Table 27 (110), *359 f.*, 588, 788

Jackson, Andrew, Table 12A (facing 60), Table 23 (93), 94,* 98,* Table 42 (171), Table 46 (194), *247*

Jansen, Cornelis, Table 12A (facing 60), Table 23 (93), 216, *248 f.*, 383

Jefferson, Thomas, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (170), Table 46 (195), 360, *536 f.*, 788

Jenner, Edward, Table 12A (facing 60), Table 26 (105), 107,* 219, *322 f.*

Johnson, Samuel, Table 12A (facing 60), 18, Table 32 (131), 132,* 150, 494, *613 ff.*, 644, 789

Jonson, Ben, Table 12A (facing 60), Table 25 (102), *291 f.*

Kant, Immanuel, Table 12A (facing 60), Table 28 (113), 115,* Table 42 (171), Table 46 (195), 216, 357, *411 f.*, 535, 596, 601

Kepler, Johann, Table 12A (facing 60), Table 29 (118), *475 ff.*, 704

Klopstock, Friedrich G., Table 12A (facing 60), Table 28 (113), 357, *413 ff.*, 494, 538, 723, 789

Knox, John, Table 12A (facing 60)

Kotzebue, August von, Table 12A (facing 60), Table 30 (122), 124,* *537 ff.*, 790

La Fontaine, Jean de, Table 12A (facing 60), Table 21 (88), 89, *224 f.*, 669

Lagrange, Joseph Louis, Table 12A (facing 60), Table 28 (113), *415*, 567

Lamartine, Alphonse de, Table 12A (facing 60), 112,* Table 28 (113), Table 42 (170), Table 46 (194), *416 ff.*, 551, 595, 790

Lamennais, Félicité Robert de, Table 12A (facing 60), Table 31 (126), 128,* 133,* Table 42 (171), Table 43 (181), *585 ff.*

Laplace, Pierre Simon, Table 12A (facing 60), Table 30 (122), 125,* Table 42 (171), Table 46 (195), 217, 331, *541 f.*

Lavoisier, Antoine Laurent, Table 12A (facing 60), Table 25 (102), 103,* *292 f.*, 790

Law, John, Table 12A (facing 60), Table 29 (118), *477 f.*, 615

Leclerc (*see* Buffon)

Lee, Robert E., Table 12B (page seven facing 60), *720 f.*

Leibnitz, Gottfried W., Table 12A (facing 60), 153,* 155,* 159, 160, Table 38 (153), Table 42 (170), Table 43 (181), Table 46 (195), 598, 648, *702 ff.*, 790

Leopardi, Giacomo, Table 12A (facing 60), 142,* 143,* Table 35 (143), 144,* *665 ff.*, 791

LeSage, A. R., Table 12A (facing 60)

Lessing, Gotthold E., Table 12A (facing 60), Table 28 (113), 358, *418 ff.*, 535, 791

L'Hôpital, Michel de, Table 12A (facing 60), 96,* Table 24 (96), *264 f.*

Liebig, Justus, Table 12A (facing 60), Table 26 (105), 106,* 108,* Table 42 (170), Table 46 (195), *323 ff.*, 792

Lincoln, Abraham, 7, Table 12A (facing 60), Table 26 (105), Table 42 (170), Table 46 (195), 216, *325 ff.*, 792

Linnaeus, Carolus, Table 12A (facing 60), Table 26 (105), 108,* 277, *327 f.*, 610, 611

Livingstone, David, Table 12B (page seven facing 60), *721 f.*

Locke, John, Table 12A (facing 60), Table 26 (105), 140, Table 42 (171), Table 46 (195), 273, 321, *328 ff.*, 598, 654, 685

Longfellow, Henry W., Table 12A (facing 60), Table 31 (126), 129,* *587 ff.*, 792

Loyola, Ignatius, Table 12A (facing 60)

Luther, Martin, Table 12A (facing 60), Table 24 (96), 98,* Table 42 (171), Table 43 (181), Table 46 (195), *265 ff.*, 538, 638

Macaulay, Thomas, Table 12A (facing 60), 149,* Table 37 (149), 152,* Table 42 (170), Table 46 (194), 239, 460, 641, *687 ff.*, 793

Machiavelli, Niccolo, Table 12A (facing 60)

Madison, James, Table 12A (facing 60), Table 25 (102), 103,* *293 f.*

Maintenon, Mme de, Table 12A (facing 60), Table 25 (102), 103,* *294 f.*, 794

Malebranche, Nicolas, Table 12A (facing 60), Table 26 (105), 105,* 106, *329 f.*

Marat, Jean Paul, Table 12A (facing 60), Table 27 (110), *361*

Marlborough, Duke of (John Churchill), Table 12A (facing 60), Table 25 (102), 103,* 156, *296 f.*

Marmont, Auguste F. L. V. de, Table 12A (facing 60), Table 26 (105), Table 42 (171), Table 46 (195), *331 f.*

Martineau, Harriet, Table 12B (page seven facing 60), *728 f.*

Masséna, André, Table 12A (facing 60), 88,* 89,* 92,* Table 21 (88), *225*

Mazarin, Jules, Table 12A (facing 60), Table 27 (110), 226, *362 f.*

Mazzini, Giuseppe, Table 12A (facing 60), 110, Table 28 (113), Table 42 (171), Table 43 (181), Table 46 (195), *421 f.*

Mehemet, Ali, Table 12A (facing 60), Table 22 (90), *233 f.*

Melanchthon, Philipp, Table 12A (facing 60), 75, Table 33 (135), 137,* 138, 143, 159, *635 ff.*, 794

Mendelssohn, Felix, Table 12A (facing 60), Table 31 (126), 128,* 129,* *589 ff.*, 794

Metastasio (P. A. D. B. Trapassi), Table 12A (facing 60), Table 30 (122), 125, *542 f.*, 586, 795

Mill, John Stuart, 40, 48, 49, Table 12A (facing 60), 150,* 155,* Table 39 (156), 156,* 157,* 158,* 159,* 160,* Table 42 (170), Table 46 (195), 691, *707 ff.*, 795

Miller, Hugh, Table 12B (page seven facing 60), *722 ff.*, 814

Michelangelo, Buonarroti, Table 12A (facing 60), Table 30 (122), 125,* Table 42 (171), Table 46 (194), *543 ff.*

Milton, John, *frontispiece*, 19, 48, Table 12A (facing 60), 121,* Table 30 (122), 123, 125, Table 42 (170), Table 43 (181), Table 46 (194), 218, 390, 414, 460, *545 ff.*, 598, 728, 796

Mirabeau, G. H. V. Requetti de, Table 12A (facing 60), 140,* 153,* Table 34 (140), Table 42 (170), Table 46 (195), *654 ff.*, 796

Molière, J.-B. Poquelin, Table 12A (facing 60), Table 27 (110), Table 42 (171), 281, *363 f.*, 371, 431

Monk, George, Table 12A (facing 60), Table 23 (93), *249*

Montaigne, Michel E. de, Table 12A (facing 60), Table 29 (118), *478 ff.*, 598

Montesquieu, Baron de (Charles de Secondat), Table 12A (facing 60), Table 28 (113), 218, *422 f.*, 512, 598

Moore, Tom, Table 12A (facing 60), Table 29 (118), *480 ff.*, 460, 622, 796

More, Thomas, Table 12A (facing 60), Table 28 (113), *423 f.*, 797

Moreau, Jean Victor Marie, Table 12A (facing 60), Table 23 (93), 94,* 108,* *251*

Mozart, Wolfgang A., 7, Table 12A (facing 60), Table 31 (126), 129,* 130,* Table 42 (170), Table 46 (194), 387, 388, 440, 442, 533, *592 ff.*, 797

Murat, Joachim, Table 12A (facing 60), 96,* Table 24 (96), Table 42 (171), Table 43 (181), Table 46 (195), *267*

Murillo, Bartolomé E., Table 12A (facing 60), Table 23 (93),

103,* Table 42 (171), Table 43 (181), Table 46 (194), *250 f.*

Musset, Alfred de, Table 12A (facing 60), Table 33 (135), 138,* 551, *638 ff.*, 798

Napier, John, Table 12A (facing 60), 105,* Table 26 (105), *332 f.*

Napoleon, Bonaparte, Table 12A (facing 60), Table 28 (113), Table 42 (170), Table 43 (181), Table 46 (194), 234, 283, 354, 418, *425 ff.*

Necker, Germaine (*see* Mme de Staël-Holstein)

Necker, Jacques, Table 12A (facing 60), 96,* Table 24 (96), *268*, 331

Nelson, Horatio, Table 12A (facing 60), 104,* Table 26 (105), Table 42 (170), Table 46 (195), 105,* *333 f.*

Newman, John Henry, Table 12B (page seven facing 60), *736 ff.*, 814

Newton, Isaac, 8, 15, Table 12A (facing 60), Table 27 (110), 111,* Table 42 (171), Table 43 (181), Table 46 (195), 232, 315, *364 f.*, 395, 493, 798

Ney, Michel, Table 12A (facing 60), Table 23 (93), 94,* 95,* 98,* Table 42 (171), Table 43 (181), Table 46 (195), *251*

Niebuhr, Barthold G., Table 12A (facing 60), Table 34 (140), 141,* 144,* Table 42 (170), Table 46 (194), 216, 560, *656 f.*, 668, 799

O'Connell, Daniel, Table 12A (facing 60), 121, Table 30 (122), 123,* *547 ff.*

Oersted, Hans Christian, Table 12B (page seven facing 60), *729 ff.*, 815

Palestrina, Giovannia P. da, Table 12A (facing 60), Table 23 (93), *252 f.*

Pascal, Blaise, Table 12A (facing 60), 149,* Table 37 (149), 150,* 151,* 152,* 153,* 159,* 217, 319, *690 ff.*

Peel, Robert, Table 12A (facing 60), Table 32 (131), 132,* 144,* 145,* Table 42 (170), Table 46 (195), 218, 561, *616 ff.*

Penn, William, Table 12A (facing 60), Table 28 (113), Table 42 (171), 215, *428 f.*, 799

Pitt, William (The Elder), Table 12A (facing 60), Table 29 (118), Table 43 (181), 285, *482 f.*, 640, 800

Pitt, William (The Younger), Table 12A (facing 60), Table 33 (135), 137,* 152, Table 42 (170), Table 43 (181), Table 46 (195), *640 ff.*, 800

Pizarro, F., Table 12A (facing 60)

Plessis, Armand Jean du (*see* Richelieu)

Pope, Alexander, Table 12A (facing 60), Table 33 (135), 138,* 139,* 149, 157, 494, 553, 598, 604, *643 ff.*, 648, 801

Poquelin, J. B. (*see Molière*)

Poussin, Nicolas, Table 12A (facing 60), Table 22 (90), *234*

Prescott, William H., Table 12A (facing 60), 109,* 110,* Table 42 (171), Table 46 (194), Table 27 (110), *366 ff.*, 801

Priestley, Joseph, Table 12A (facing 60), Table 29 (118), *484 f.*

Rabelais, F., Table 12A (facing 60)

Rabutin-Chantal, Marie de (*see* Sévigné

Racine, Jean, Table 12A (facing 60), Table 28 (113), 259, 281, 416, *430 f.*, 622, 802

Raleigh, Walter, Table 12A (facing 60), Table 27 (110), *368 f.*

Raphael, Sanzio, Table 12A (facing 60), Table 23 (93), 95,* Table 42 (171), Table 46 (194), 218, *253 ff.*

Rebecque, H. B. Constant (*see* Constant)

Rembrandt, Hermanzoon van Rijn, Table 12A (facing 60), Table 23 (93), 376, *255 f.*

Renan, Ernest, Table 12A (facing 60), Table 31 (126), 129,* *595 f.*, 802

Reuchlin, Johann, Table 12A (facing 60), Table 25 (102), 103,* *297*, 637

Reynolds, Joshua, Table 12A (facing 60), Table 26 (105), Table 42 (171), Table 46 (194), *334 f.*

Richelieu, Duc de (Armand Jean du Plessis), Table 12A (facing 60), Table 25 (102), 103,* *298*, 329

Robertson, William, Table 12A (facing 60), Table 28 (113), 114,* 115,* *431 f.*

Robespierre, Maximilien M. I., Table 12A (facing 60), Table 28 (113), 125,* Table 42 (171), Table 46 (195), *432 f.*

Rossini, G. Antonio, Table 12A (facing 60), Table 25 (102), Table 42 (171), Table 46 (194), *298 ff.*

Rousseau, Jean Jacques, Table 12A (facing 60), Table 27 (110), Table 42 (171), 259, *369 ff.*, 416, 427, 510, 585, 586, 598, 599, 622

Rubens, Peter Paul, Table 12A (facing 60), Table 29 (118), *485 ff.*

St. Cyr, Gouvion, Table 12A (facing 60), 90,* Table 22 (90), *235*, 248, 383

Saint-Simon, Comte de (Claude Henry DeRouvroy), Table 12A (facing 60), Table 27 (110), *372 f.*

Sainte-Beuve, Charles Augustin, Table 12A (facing 60), 121,* Table 30 (122), 123, 151, *549 ff.*, 803

Sand, George (Aurore Dupin), Table 12A (facing 60), Table 31 (126), 129,* Table 42 (171), *596 ff.*, 803

Sarpi, Pietro, Table 12A (facing 60), 140,* 141,* 218, Table 34 (140), *660 f.*

Savonarola, Girolamo, Table 12A (facing 60), 109,* Table 27 (110), *373 f.*

Scaliger, Joseph J., Table 12A (facing 60), Table 25 (102), 103,* 153, 154,* 215, *301 f.*, 342, 700

Schelling, F. W., 39, Table 12A (facing 60), 145,* 159,* Table 36 (145), Table 42 (170), Table 43 (181), Table 46 (195), 217, 218, *678 ff.*, *745 ff.*, 803

Schiller, J. C. Friederich, Table 12A (facing 60), Table 29 (118), Table 42 (171), Table 46 (194), 405, 408, 469, 475, *487 ff.*, 536, 639, 804

Schleiermacher, Friedrich E. D., 7, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (171), Table 46 (195),, 492,, *599 ff.*, 804

Scott, Walter, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (170), 398, 460, 469, *602 ff.*, 622, 688, 708, 804

Secondat, Charles de (*see* Montesquieu)

Sévigné, Mme de (Marie de Rabutin-Chantal), Table 12A (facing 60), Table 26 (105), *336 f.*

Seward, William H., Table 12A (facing 60), Table 29 (118), *489 ff.*

Shaftesbury, Earl of (Anthony Ashley Cooper), Table 12A (facing 60), Table 26 (105), *337 f.*, 469, 525

Shakespeare, William, Table 12A (facing 60)

Sheridan, Richard Brinsley Butler, Table 12A (facing 60), 109,* Table 27 (110), *375 f.*, 565, 805

Sheridan, Philip H., Table 12B (page seven facing 60), Table 27 (110), *713 f.*

Sherman, William T., Table 12A (facing 60), Table 26 (105), *339*

Smith, Adam, Table 12A (facing 60), Table 28 (113), 158,* 427, *434 f.*

Soult, Nicolas Jean de Dieu, Table 12A (facing 60), 96,* Table 24 (96), *268 f.*

Southey, Robert, Table 12B (page seven facing 60), 397, 460, 674, *738 ff.*, 815

Spenser, Edmund, Table 12A (facing 60), 112,* Table 28 (113), *436*, 604, 606, 622, 805

Spinoza, Benedict de, Table 12A (facing 60), Table 27 (110), *376 f.*

Staël-Holstein, Mme de (Germaine Necker), Table 12A (facing 60), Table 32 (131), 132,* Table 42 (171), *618 ff.*, 806

Stanhope, P. D. (*see* Chesterfield)

Stevenson, Elizabeth Cleghorn (*see* Gaskell)

Strauss, Daird Friedrich, Table 12A (facing 60), Table 29 (118), *491 f.*

Sumner, Charles, Table 12B (page seven facing 60), *731 f.*, 815

Swedenborg, Emanuel, Table 12A (facing 60), Table 24 (96), 98,* *269 f.*

Swift, Jonathan, Table 12A (facing 60), Table 26 (105), 106,* 107,* *339 f.*

Tasso, Torquato, Table 12A (facing 60), 135,* 136,* Table 33 (135), 417, 586, 598, *645 ff.*, 739, 806

Temple, William, Table 12A (facing 60), Table 27 (110), *377 f.*, 340, 341

Tennyson, Alfred, Table 12A (facing 60), Table 32 (131), 132,* Table 42 (170), Table 46 (194), *621 ff.*, 806

Thackeray, William Makepeace, Table 12A (facing 60), 112, Table 28 (113), 114,* *437 f.*, 807

Thiers, Louis A., Table 12A (facing 60), 101,* Table 25 (102), Table 42 (171), *302 f.*

Thou, Jacques Auguste de, Table 12A (facing 60), 105,* 216, Table 26 (105), *341 f.*

Tieck, Ludwig, Table 12A (facing 60), Table 32 (131), 132,* *623 ff.*, 808

Titian, Table 12A (facing 60)

Trapassi, P. A. D. B. (*see* Metastasio)

Turgot, Robert J., Table 12A (facing 60), Table 29 (118), 379, *492 ff.*

Van Dyck, Anthony, Table 12A (facing 60), Table 25 (102), 103,* *303 f.*

Vauban, Sebastian de, Table 12A (facing 60), Table 21 (88), 89, *225 f.*

Vega, Lope de, Table 12A (facing 60), Table 29 (118), 462, *494 f.*, 808

Velasquez, Diego, Table 12A (facing 60), Table 26 (105), 106,* 107,* 250, *342*

Van Rijn, Hermanzoon (*see* Rembrandt)

Vergniaud, Pierre, Table 12A (facing 60), Table 27 (110), *378 f.*

Villiers, George (*see* Clarendon)

Vinci, Leonardo da, Table 12A (facing 60), Table 28 (113), *438 ff.*

Voltaire, François Marie Arouet de, Table 12A (facing 60), 142, 143, 144, 146,* 149, 153,* 158,* 159,* Table 35 (143), Table 42 (171), Table 43 (181), 217, 259, 381, 416, 427, 586, 650, *669 ff.*, 809

Wagner, Richard, Table 12A (facing 60), Table 28 (113), Table 42 (171), Table 46 (194), *440 ff.*, 809

Wallenstein, Albrecht von, Table 12A (facing 60), Table 23 (93), 94,* 99, *257 f.*

Walpole, Robert, Table 12A (facing 60), Table 26 (105), *344 f.*

Warburton, William, Table 12A (facing 60), 96, 97, Table 24 (96), *270 f.*

Washington, George, 19, Table 12A (facing 60), 104,* 105,* Table 42 (171), Table 43 (181), Table 26 (105), Table 46 (194), *345 f.*, 810

Watt, James, Table 12A (facing 60), 117, Table 29 (118), 120,* *495 ff.*

Weber, Karl Maria von, Table 12A (facing 60), Table 28 (113), Table 42 (171), Table 46 (194), 216, *443 ff.*, 810

Webster, Daniel, Table 12A (facing 60), Table 30 (122), 124,* Table 42 (171), Table 46 (195), *551 ff.*, 811

Wesley, John, Table 12A (facing 60), Table 28 (113), Table 42 (171), Table 46 (195), *446 f.*

Wieland, Christopher M., Table 12A (facing 60), Table 33 (135), 138,* 139,* *647*, 811

Wilberforce, William, Table 12A (facing 60), Table 25 (102), 103,* *304 f.*, 564

Wilkes, John, Table 12A (facing 60), Table 25 (102), 103,* *305 f.*

Winckelmann, J. J., Table 12A (facing 60), Table 30 (122), *554 ff.*

Wolf, F. A., Table 12A (facing 60), Table 32 (131), 536, *626 ff.*, 808

Wolsey, Thomas, Table 12A (facing 60), 139,* 217, Table 34 (140), *662*

Wordsworth, William, Table 12A (facing 60), Table 31 (126), 129,* Table 42 (171), Table 46 (194), *605 ff.*, 811

Zwingli, Ulrich, Table 12A (facing 60), 117,* Table 29 (118), 119,* 120,* *498 ff.*

GENERAL INDEX

Abnormality, 15; *see* Insanity

Abolitionist, 716 f.

Académie de Belles-lettres, 321, 596

Academy of Aix, prizes at, 302

Academy of Berlin, prizes won, 358

Academy of Montpelier, professor of, 462

Academy of Sciences, member of, 281, 293, 574, 634

Achievement, early, 95, 108, 132, 141, 143, 217; *see* case studies *in* Index of Geniuses; in business, 278 f., 280, 409, 411, 717; classification by, 35; field of, 212; financial, 478; late, 88, 89, 92, 217, 238, 260; relation between endowment and, 5, 9; trait profiles by field of, 188 ff.; *see* Age of achievement

Achievement in several lines, 265, 268, 269, 270, 278, 280, 287, 302, 304, 316, 320, 322, 341, 372, 375, 438 ff., 458, 543 f., 650, 675 f.; *see* Versatility

Activity (trait rating), 95, 168, 176, 178, 179, 183, 184

Actor, 291, 362, 363

Age of achievement, 18, 132, 217, 762

—Academy of Sciences, papers for, at 16 years, 634

—Blank verse at 8 years, 622

—Canon of Metz at 13 years, 631

—Comedies at 8 years, 348

—Degrees taken at 14 years, 662; *see* Degrees

—Elected to House of Commons at 21 years, 305

—Greek writings at 4 years, 638; at 10 years, 679

—Hexameter verse composed at 13 years, 704, 790

—History at 2 years, 735; great, at 15 years, 604; of Rome at 6 years, 709, 795

—Instructor in Latin at 8 years, 156

—Latin, poems composed at 13 years, 637, 685 f.; verses at 7 years, 700; writings at 10 years, 679

—Lexicons in Hebrew and Greek at 8, 784

—Mathematical discovery, great, at 11 years, 692; at 18 years, 578

—Much writing at 11 years, 658

—Musical compositions at 5 years, 593; published at 7 years, 593; at 10 years, 533; at 11 years, 591; at 13 years, 289

—Musical conductor at 15 years, 300

—Opera published at 18 years, 300

—Orations, public, at 7 years, 646; at 18 years, 811

—Paintings, great, at 11, 254; portrait, at 12 years, 335; at 14 years, 298, 303, 544; at 15 years, 250; at 18 years, 343; at 21 years, 256

—Plays and poetry, at 12 years, 644, 667, 670, 740; and stories at 10 years, 548, 580, 584, 598; at 13 years, 360; at 14 years, 763 f.

—Pleading cases before court at 17 years, 161, 282, 701

—Poetry, dictated at 5 years, 808; written at 6 years, 540, 576; in Latin at 7 years, 700; (verses) at 7 years, 689, 793;

Age of achievement
—Poetry—*Continued*
at 8 years, 350; (verses) at 9 years, 815; at 10 years, 564; at 11 years, 543, 625; and tragedy at 12 years, 809; and drama, at 13 years, 584, 589; hexameter, at 13 years, 704, 790; Latin, at 13 years, 637, 685 f., 794; at 15 years, 546, 562, 673; at 16 years, 551, 762, 763; (verses) published at 17 years, 716, 811; written at 17 years, 648
—Private secretary at 14 years, 650; at 19 years, 659
—Public disputant at 15 years, 660
—Sculptures at 8 years, 352
—Singing in public, at 12 years, 299
See Achievement, Production, Publication, Writings
Age, mental, 6 f.
AI IQ ratings, 55, 66, 70, Table 12A (*facing* 60), 87
AII IQ ratings, 55 ff., Tables 12A (*facing* 60), 67, 70
Allen, Grant, 14
Ambitions, 237, 341, 348, 361, 372 f., 427, 459, 483, 548, 565, 567, 614, 616, 663
Analysis, Freudian, 16; psychological, 24
Archaeologist, 554
Artists, Table 3 (35), 60, 61, 187 n., 194, 265, 377; corrected IQ estimates, 83 f.; longevity, Table 4 (36); personality, 200; self-trait ratings, 200
—Architects, 438, 543
—Engravers and etchers, 244 f., 255, 318
—Painters, 234, 244 f., 250, 253 f., 255, 303, 318, 334 f., 342, 438, 485 f., 543, 712
—Sculptors, 265, 351 f., 438, 543
See Age of achievement, Production
Attention, unusual, as evidence of precocity, 634; *see* Concentration

Balance (trait rating), 168, 176, 178
Basis of rating, 74, 75, 169
Beaujean, *Dictionnaire biographique*, 19
Bibliography, vii, 23 f., 39, 223
Binet, Alfred, 24
Biographical data, 23, 38 ff., 40 ff., 745 ff.; and mental test standards, 29, 47
Birth
—Circumstances of, 4
—High (cultured, distinguished), 238, 249, 264, 268, 270, 273, 276, 279, 281, 282, 287, 292, 293, 294, 298, 301, 302, 303, 304, 306, 309, 315, 316, 318, 320, 322, 329, 331, 334 f., 339, 340, 341, 345, 358, 359, 361, 366, 368, 372, 373, 375, 376, 377, 379, 383, 388 f., 392, 398, 404, 409, 413, 415, 418, 421, 423, 425, 428, 431, 432, 434, 437, 446, 449, 458, 462 f., 464, 470, 477, 485, 491, 492 f., 504, 508, 515, 517, 522, 528, 530, 536, 537 f., 546, 547, 549, 551, 557, 565, 567, 577, 585, 587, 589, 608 f., 613 f., 618, 621, 626, 631, 635 f., 638, 647, 649, 651, 656, 672, 675, 678, 687, 693, 702, 707, 712, 718, 719, 720, 731, 734, 736
—Humble, 226, 228, 229, 233, 235, 237, 241, 247, 250, 251, 253, 258, 265, 278, 280, 298, 323, 325, 327, 333, 336, 347, 348, 351, 356, 362, 363, 378, 395, 407, 410, 411, 430, 436, 440, 471, 480, 484, 487, 494, 495 f., 498, 511, 513, 524, 541, 554, 580, 592, 595, 623 f., 716, 721, 722, 724, 726, 728, 729, 732, 739
—Illegitimate, 400, 438, 573
—Middle class (or gentry), 240, 251, 255, 262, 267, 268, 269, 285,

291, 305, 311, 313, 319, 328, 353, 364, 369, 382, 384, 386, 391, 394, 400, 401 f., 403, 406, 438, 451, 452, 454, 472, 479, 489, 499, 502 f., 506, 513, 520, 532, 542, 543, 575, 578, 580, 582, 585, 602, 605, 616, 643, 660, 683

—Noble, 257, 261, 274, 284, 287 f., 288, 293, 294, 307 f., 312, 317, 332, 337, 342, 344, 385, 396, 416, 422, 443, 456, 461, 475, 482, 501, 519, 526, 560, 563, 569, 573, 596, 607, 640, 645, 654, 665, 669, 690, 699, 714, 718

Boldness, 239, 274, 333, 487, 527

Boring, E. G., 72

Bravery, distinguished for, 269, 346; as a trait, 204

"Brightness," 6, 29, 47, 48; differences of, between groups, 60, 61; highest IQ's, 212; ratings on, 124

Brimhall, Dean R., 29

Candolle, Alphonse de, 19, 23, 28

Case study, complete example of, 745 ff.; outline and method, viii f.; sources of data for, 38 ff.; *see* Index of Geniuses

Castle, Cora Sutton, 23

Categories of available material, 22

Cattell, J. McKeen, vi, 15, 18, 19, 20, 21, 23, 27, 29, 31, 32, 33, 39, 55

Characterization of cases, 759

Character, strength of, 212, 483, 484

Character traits, ratings of, 165 ff., 172 ff., analysis of, 177 ff.; of eminent, 218; method of deriving, 169 ff.; reliability of, 170 ff.

Circumstances, and genius, 14, 165; *see* Environment, Home training, influence of

Clarke, Edwin L., 19, 29

Classical scholars, 297, 301, 400, 665

Classification, by century, 32 f., 80; by field of achievement, 34, 35, 38; by length of life, 35, 36; by nationality, 33; by reliability of data, 80; Taussig occupational, 36

Clergyman, daughter of, 712, 734; son of, 263, 275, 276, 306, 327, 333, 413, 418, 446, 449, 471, 517, 600, 621, 632, 672, 678

Coefficient, reliability, 9, 48, 50, 56

Commonwealth Fund, ii, xi, xii

Community interests, influence of, 165

Concentration, 132, 271; lack of, 769

Conscientiousness, 186

Cooper, William Alpha, xiii

Corrected IQ, estimates, 81 f., 83, 84

Correctness, *see* Probable correctness, Probable error

Courage, 246, 249, 252, 333, 430; distinguished for, 262, 269, 346, 368 f.

Cox, Catharine Morris, v, vi, vii

Crime, commission of, 478

Current events, influence of, 165

Data, character of, 40 ff.; discussion and analysis (*see* IQ estimates *and* Bibliography); reliability of, viii, 50 f., 52 ff., 73 ff., 79 ff.

Davenport, Charles B., 13, 28

Degrees, taken at early age, 92, 98, 137, 139, 144, 231, 264, 266, 270, 275, 277, 279, 287, 291, 297, 307, 312, 340, 382, 410, 420, 450, 453, 472, 493, 499, 504, 558, 642, 678, 687, 700, 719; at age of 14, 662

Development of geniuses, 3, 15, 41, 44

Dissipation, 247, 262, 285, 452, 478, 479, 522 f., 563, 575, 582, 640, 652; *see* Wild life
Distribution of case frequencies, 51, 53 f.; by field, 192 f.
Dramatic interest, 440, 479, 489, 513 f., 639, 672, 715, 719, 791
Drugs, use of, 674
Duel, 291, 337

Eccentricity, 128, 364, 379, 392, 417, 435, 480, 493, 510, 520, 529, 557, 563, 569, 596 f., 597, 607, 621, 663
Economists, 278, 434, 707 ff.
Education
—Begun at 2, 672; begun at 3, 263, 345, 365, 517, 534, 552, 600, 639, 645, 670, 739, 806; begun at 4, 400, 473, 513, 548, 573; begun very early, 443, 447, 464, 472, 478, 494, 501, 504, 515 f., 567, 581, 597, 619
—Classical, 245, 270, 285, 291, 301, 321, 329, 332, 337, 354, 357, 363, 367, 382, 385, 396, 408, 413, 423, 424, 430, 432, 433, 434, 446, 457, 463, 470, 483, 484, 486, 487, 491, 505, 516, 536, 538 f., 542, 546, 555, 577, 579, 586 f., 614, 637, 643, 645 f., 647, 657, 684, 708, 725
—College or university, 240, 248, 251, 262, 263, 265, 266, 267, 269, 273, 275, 276, 281 f., 285, 287, 291, 293, 297, 298, 306, 307, 311, 312, 315, 317, 321, 328, 329, 332, 338, 340, 341, 344, 357, 359, 362, 363, 366, 369, 378, 380, 389, 391, 395, 397, 399, 405 f., 409, 411, 412, 421, 429, 433, 436, 438 447, 450, 453, 462, 464, 470, 473 f., 479, 490, 494 f., 498, 501, 507, 517, 521, 522 f., 527, 540, 546, 548, 552, 557, 559, 562 f., 564 f., 569 f., 572, 582, 590, 600, 603, 606, 608, 616, 623, 631, 634, 636, 640 f., 659, 680 f., 690, 694 f., 698, 718, 727, 740
—Earned, 248, 266, 554, 555
—Experimental, 479
—Influence of, 17, 91, 165
—Limited, 245, 326, 349, 360, 393, 525, 528 f., 721, 723
—No formal, 351, 496, 666, 691
—Slight, 229, 230, 233, 241, 242, 249, 254, 325, 333, 384, 717, 779
See Self-education
Ellis, Havelock, 18, 19, 20, 21, 29, 32
Eminence, by achievement, 32; basis for Schelling's, 759; characteristics of, 186 f.; as a criterion of genius, 5, 17 ff., 21; definition of, 18; field of, 35, 36, 59 f.; and longevity, 36; rank order of, 19, 55, 181, 761; relation to IQ estimate, 55; *see also* First Ten, Last Ten
Emotional traits, 168, 176, 177, 178, 619, 740; *see* Insanity, Mystic experiences
Endowment, 15, 215; *see* Parents, gifted
Environment, factors of, rated, 165 ff., Table 40 (166); index of influences of, 166; and genius, 15, 16, 216; *see* Education, Home training
Euripides, 27
Explorers, 228, 231, 403 f., 721, 781

Factors of genius, 15
Family standing, 44; superior, 219, 535, 558; *see* Birth
Feis, Oswald, 23
Fellow at Oxford, 307; at Trinity, 341
Field of eminence, and IQ, 59, 60; distribution of ratings by, 196 f.
Financier, 268, 477
First Ten (in eminence), 55 f., 83, 180 f., 184, 186
Fiske, John, 14

Galton, Francis, v, 4, 7, 8, 12, 13, 18, 19, 21, 40, 41, 42, 43; IQ of, 44, 48
Gambling, 362, 475, 478, 511, 524, 653
General Assembly, member of, 333
Genius
—Biographical data for study of, 38 f., 40 ff., 745 ff.
—Classification of, by century, 32 f., 80; by environmental influences, 165 ff.; by field of later achievement, 34 f., 57, 172; by length of life, 35, 36; by nationality, 33 f.; by parental status, 36 f.; by method of selection of subjects, vi, 31 f.; by personality traits, 7, 45; by traits of character, rated, 169 ff., 177 ff.
—Definitions of, 18, 19
—Earlier methods of study of, 11 ff.
—Experimental study of, 5
—Group A, 31, 32 ff., 49 f., Table 12A (*facing* 60), 66, 70 ff.
—Group B, 32, 37, 64, Table 20B (84)
—Group C, 38 165 ff., 177 ff.
—Historiometric method in study of, 6, 16, 21 f., 63
—Individual ratings of, Tables 12A and 12B (*facing* 60)
—IQ estimates, 49 ff., 52, 63 ff., 81 ff.
—Origin, selection, and education of, 3
—Trait profile of, 177 ff.
Gillan, Leila O., vii, xi, xii, xiii
Goodenough, Florence, xii, 63
Gordon, Kate, xii, 63
Greatness, 11 f., 19, 20, 23
Group ratings, 172; *see* Genius, Ratings
Hall, G. Stanley, 24
Health, ill, 234, 243, 259, 262, 307, 310, 313, 319, 330, 334, 341, 360, 368, 370, 379, 384, 385, 389, 393, 415, 417, 434, 443, 445, 463, 466, 474, 475, 482, 484, 488, 513, 516, 518 f., 520, 522, 528, 532, 602, 614, 619, 633, 641, 644, 655, 674, 675, 726, 729, 736
Hereditary aristocracy omitted, 32; *see* Royalty
Heredity, 22; classification by, 36 f., 165, 216; transmission of traits by, 3; and youths who achieve eminence, 216, 219; *see* Birth, Parents, gifted.
Herring, John P., 77
Heymans, O., 24
Highest IQ's, 55 f., Table 20A (83), 172, 180 f., 185, 186
Hirsch, Julian, 20
Historical method, 22
Historiometry, 21; reliability and validity of, 22, 25; *see* Psychometry
Histrionic ability, 362, 364, 479, 480, 513, 538, 584, 715, 736; *see* Dramatic interests
Home training, influence of, 165, 698; *see* Environment
Horace, 219
Humorist, 513; *see* Wit
Idealism, 286, 313, 350, 508
Illustrious, defined, 18 f.
Imagination, 232, 367, 373, 379, 392, 410, 440, 444, 476, 492, 513, 576, 592, 597, 598 f., 621, 666, 688, 716, 733, 735, 736
Imaginative writers, characteristics of, 201
Individual ratings of young geniuses, Table 12A and 12B (*facing* 60)
Inheritance, of mental and moral traits, 16; not sufficient alone for genius, 216
Inquisitive, 615, 655

Insanity, 416, 433, 635, 654, 729; definition of, 15; delusions, 397, 596; kin to genius, 14
Insubordination, 267
Intellect, early maturity of, 133, 141, 153, 155, 325 f., 337, 349, 362, 377, 398, 406, 412, 421, 423, 433, 443, 444, 451, 460, 470, 485, 508, 523, 527, 618 f., 666, 732; unusual, 502, 688, 703 f., 707; *see* Age of achievement
Intellectual leader, 695 f.
Intellectual traits, 19, 94, 176, 178, 185, 212, 552, 566, 581, 731, 735; *see* Trait profile
Intelligence quotient (IQ), 7 n., 45; factor, 179; *see* IQ estimates
Intelligence, related to artistic judgment, 95
Intelligence tests, "brightness" by, 6; Plato's, 3; Stanford-Binet, 8, 47, 74, 77 f.
IQ estimates, analysis of, 87–164; average, 48, 49, 71; correctness of the difference between means, 72 f.; and eminence, 55 ff.; final ratings, 66 ff., 71; intercorrelations, 66 ff., method of derivation, 47 f., 63 ff.; and nationality, 57 ff., 59 ff.; and recorded development, Tables 12A and 12B (*facing* 60); relation to field of eminence, 59, 85; reliability of data, 52 ff.; significance of, 48; trial ratings, 64
IQ levels, 100 to 200, 87; *see* IQ estimates
Interests, 17; index of, Table 41 (168); intellectual, social, and activity ratings, 167 ff.; intensity of, 168
International law, founder of, 699 ff.
Inventive, 524, 666, 711
Inventor, 495 f., 711 f.; of 14 mechanical devices, 270; of logarithms, 332
James, William, 13
Jurist, 632, 683, 699 f.

Kelley, Truman L., xii, 69, 77, 82
Knollin, H. E., 76

Language mastery, 153, 156, 404, 626; *see* Age of achievement, Classical scholars, Translations
Last Ten (in eminence), 55 f., 83, 180 f., 183, 186
Latin, prizes for writing, 774, 775, 780, 798; publication in, at 12 years, 783; at 19 years, 763; writings at 4 years, 149; before 6 years, 761; *see also* Age of achievement, Classical scholars
Laziness, 299, 324, 437, 479, 729
Lippincott, *Biographical Dictionary*, 19, 26; *see* Sources
Literary ability, early, 155, 217, 218, 307, 321, 348, 397, 402, 408, 413, 458, 464 f., 516, 718
Literary tastes, 335, 347, 363, 417, 419 f., 449, 458, 463, 488, 534, 536, 538, 542, 546, 579, 583, 599, 615, 621, 633, 638, 656
Livesay, Ruth Haines, vii, xi, xii, xiii
Lombroso, Cèsare, vi, 14
Longevity, 16, 35, Table 4 (36), 95, 152, 665, Tables 12A and 12B (*facing* 60)
Love affair, brief, 646, 694, 729; early, 417, 441, 450, 458, 460, 461, 530, 538, 540, 568, 583, 592, 607, 620, 625, 627, 648, 765; first at 4 years, 639; first at 5 years, 425; illicit, 372, 478, 653; many, 381, 653; unhappy, 334, 436, 627, 640, 649
Lowest IQ's, 55 f., 83, 180 f., 184, 186

Manual dexterity, very early, 260, 370, 371, 513, 531
Margis, Paul, 16, 25

Marriage and family, 16, 231, 247, 253, 280, 284, 313, 317, 368, 376, 402, 407, 408, 410, 411, 438, 452, 461, 466, 476, 491, 515, 519, 536, 589, 594, 599, 620, 628, 638, 653, 656, 674, 710, 721

Mathematical talent, 140, 151 f., 275, 315, 319, 331, 366, 392 f., 398, 415, 439, 454, 477 f., 497, 499, 503, 507 f., 541, 566, 568, 570, 572, 583; at age 7, 120; *see* Mathematical tastes, Mathematicians

Mathematical tastes, 366, 373, 425, 464, 466, 527 f., 587, 654

Mathematicians, 577, 607

Mathematics, 684; dislike for, 461, 490, 517, 718; head of, in Italy, 661

Mechanical ability, 124, 364, 371, 452, 497, 527, 711

Melancholy, 374, 381, 397, 415, 417, 433, 461, 471, 541, 587, 612, 614 f., 625, 734; *see* Character traits, analysis of

Memory, lack of, 399; as a trait, 186–212; unusual, 124, 245, 281, 325, 348, 361, 367, 385, 389, 400, 430, 437, 453, 497, 501, 520 f., 541, 570, 611, 628, 634, 672, 690, 730

Mental test standards applied to biographical material, 29, 47

Mental traits, 314, 315, 323, 345, 377, 412, 454, 676

Merrill, Maud A., vii, xii, xiii, 63

Metaphysician, 302, 329, 383, 447, 520 f.

Metaphysics, 558, 730; interest in, 526, 531, 615, 669, 673

Methods, Cattell's, 19; historical, 16, 22 (*see* Historiometry); objective, 18, 20; subjective, 18, statistical, 12, 27

Meyrick, Mary, xiii, 169 ff.

Military achievement, 225, 226, 233, 235, 238, 239, 240, 243 f., 249, 251 f., 257, 261, 262, 269, 296, 312 f., 331, 338, 339, 345, 363, 432, 719, 720 f.; distinguished for, 373, 418, 425 f.

Military service, 530, 531 f.

Military tastes, 298, 468, 499, 565

Missionary, 721 f.

Moral attitude disturbed, 370

Moral traits, 226, 266 f., 280, 292, 306, 314, 320, 345, 366, 373, 374, 389, 431, 465, 510, 537, 553; at age of 4, 269

Moronity, 89

Musical ability, 289, 299, 356, 387, 442 f., 443 f., 527, 532, 736; at age 4, 129, 217, 242, 252 f., 531; *see* Musicians

Musical tastes, 407, 424, 439, 480, 499, 530, 626, 653

Musicians, 187 n., 188, 190, 192 f., 196, 242, 252, 288 f.; average in good traits, 211 f.; composite trait ratings as a group, 201 f.; corrected IQ estimates, 83 f.; graph of IQ estimates, 60; intellectual average of group, 202; longevity of, Table 4 (36); percentage of eminent men, Table 3 (35); trait ratings of, Table 48A (198)

—Composers, 298 f., 300, 309, 368 ff., 440, 443, 532 f., 589, 592 ff.

—Prodigies, 129, 217, 242, 252, 531, 590 f.

—Singers, 289, 299, 309, 555

—Teachers, 372

Music, dislike for, 534; love for, *see* Musical ability, Musicians

Mystic experiences, 269 f., 416, 417, 428, 440 f., 462, 467, 475, 488, 507, 549, 605, 622, 646, 647

Nationality, 38; classification by, 34; eminence by, 16; groups, 58, 59; and IQ estimates, 57

Naval achievement, 228, 229, 231 f., 282 f., 312, 333, 403
Navigators, 228, 282, 333 f.
Nervous child, 572, 644, 684
Neurotic sensitivity, 150
Norms for estimating IQ's, *see* IQ estimate
Nurture, and its relation to eminence, 14; *see* Environment

Occupational status of parents, 37
Odin, Alfred, 14, 19, 21, 23, 29
Opportunity, average high, 216 f.
Orator, 278, 304, 305, 314, 316, 326, 375, 378, 388 f., 458, 482, 489 f., 517, 519, 522, 525, 547, 551 f., 563, 631, 632, 640 f., 646, 651, 654
Organization, excellent, 244, 251, 252, 269
Originality, 180, 501, 576
Orphan, 225, 233, 276, 292, 309, 312, 339, 370, 379, 400, 402, 407, 430, 433, 470, 484, 511, 538, 564, 575, 711, 720
Ostwald, Wilhelm, 15, 17, 24, 28
Otis, A. S., 76

Parental standing, rating by, 92, 94, 552
Parents, gifted, 472, 573, 589, 592, 602, 621, 626, 638, 640, 649, 678, 687, 690, 700, 702
Pathology, 16
Pearson, Karl, v, 195
Perseverance, 180 ff., 446, 548
Persistence of motive, 179, 186, 187; First Ten, 212, 389
Personality traits, 38; as elements of character, 45, 183, 212 f.; of soldier-statesman, 204
Philologist, 404 f; classical, 626
Philosophers, 35, 60, 187 n., 189, 211 f., 269, 321, 328, 329 f., 358, 364 f., 369 ff., 372 ff., 376 f., 383, 385, 395 f., 411 ff., 422, 456, 470, 471 f., 484, 491, 501 f., 505 f., 520 f., 534, 557, 571 f., 573, 577 f., 578 f., 580 f., 585, 599 ff., 607 f., 612 ff., 656 f., 678 f., 683, 690 ff., 702 ff., 707 f., 745; characteristic traits of, 206; IQ estimates, 83; *see* Metaphysician, Scientists
Physical beauty, 439, 590; absence of, 620
Physical endowments, 15 f.
Physical frailty, 106, 128, 491, 577, 583, 609; *see* Health
Physical growth, 136
Physical strength, 470, 507, 623
Plato, 3
Political achievement, 233, 237, 243, 247, 273, 274, 281, 293, 294, 305 f., 316, 325, 425 ff., 515 f., 536 f., 547 f., 565 f., 649 f., 662 f.; *see* Statesmen and Politicians
Political interests, 229, 275, 375, 421, 428, 434, 477, 492, 501, 558 f., 651 ff.
Poverty, 227, 235, 237, 247, 250, 257, 263, 356, 362, 411, 413, 436, 486, 510, 514, 521, 526, 530, 555, 575, 615, 676; fear of, 543
Precocity, 122, 123 f., 127, 128, 129, 141, 217, 289 f., 311, 313, 343, 408, 418, 427, 439, 440, 454, 460 f., 462, 463, 468, 488, 507, 518, 533, 547, 560, 568, 591, 642, 644, 646, 653, 655, 674, 686, 709; *see* Age of achievement
Prison, 291, 299
Probable correctness, 73 f.
Probable error, 79; Cattell's, 19; Kelley's, 77
Prodigies, 153 ff., 163; mathematical, 152; musical, 129, 217, 242, 252, 531, 590 f.; *see* Age of achievement
Production, early, 41 f., 95, 127, 128, 130, 136, 137, 155, 217, 218, 260, 300, 301, 303, 314, 316, 317, 321, 329, 341, 343, 352, 355, 359,

363, 374, 381, 387, 390, 393 f., 395, 401, 403, 411, 442 f., 444, 453, 461, 462, 469, 472, 485, 486, 488, 493 f., 502, 506, 513 f., 518, 523, 525 f., 544 f., 563, 580, 608, 726, 734, 740; prodigious, 667, 668, 709 f., 735; *see* Achievement, Publication

Profile, trait, 178

Profiles, of groups compared, 182, 188 ff.

Psychographic method, 25, 28; *see* Historiometry

Psychologists, 245 f., 361

Psychometry, and historiometry, 21 ff., 28 ff.; fundamental propositions, 22; data available, 23 f., 38 ff.; reliability and validity, 25 f.

Psychopathic traits, 416, 478, 493

Publication, first, of geniuses, 89, 92, 98, 108, 130, 142, 154, 163, 217, 232, 271, 275, 277, 282, 285, 297, 301, 320, 353, 355, 360, 361, 368, 375, 402, 405, 408, 413, 414, 445, 450, 453, 454, 460 f., 464, 466, 469, 477, 483, 492, 494, 515, 516, 541, 558, 576, 586 f., 593, 622, 626, 637, 644, 648, 656, 664 f., 667, 669,, 698 f., 704 f., 709, 718, 745, 766, 776, 783, 787, 788, 801, 806, 808, 813, 815; *see* Achievement

Publication, periodical, 668; contributions to, 788, 792; enterprise begun by young geniuses, 765, 815

Racial characteristics, 354 f., 376, 515, 694

Rank order of eminence, 55

Raters, 63 n.

Ratings, at or above 200, 218; of character traits, 169; of groups compared, 183; Group A, 31, 32 f., 49 f., 66, 70 ff.; Group B, 32, 37, 64; Group C, 38, 165 ff., 177 ff.; reliability of, 170 f.; trial, 64

Reading

—Amount of, 43, 370, 380, 409, 424, 460, 486, 496, 519, 576, 634, 686

—At age 3, 103, 107, 124, 217, 340, 341, 552, 603, 626, 647, 674, 685, 689, 691, 694

—At age 4, 108, 467, 513, 538, 609, 624

—Bible at 3 years, 340

—Classical, 554, 622, 679; *see* Scholars

—Classics at 7, 657; *see* Latin, Age of achievement

—Dislike for, 255, 256, 258 f., 264, 344, 356 f., 360, 384

—Earliest, 41, 97, 108, 115, 124, 345, 405, 421, 562, 583, 614 f.

—Greek at 4, 149, 708

—Influence of, 165, 619, 720

—Late learning, 246

—Love for, 109, 110, 111, 140, 264, 286, 308, 319, 324, 325 f., 333, 335, 366, 370, 374, 380, 389 f., 396, 399, 405, 407, 417, 421, 423, 424, 430, 442, 456, 470, 479, 489, 493, 503, 510, 512, 514, 517 f., 525, 529, 539, 544, 548, 553, 562, 568, 570, 572, 598, 606, 610, 612, 622, 625, 638, 643 f., 664, 673, 676, 679, 723, 727, 732, 737

Reibmayr, Albert, 23

Reliability, of character-trait estimates, 170; of character trait judges, 172; co-efficient, 8, 48, 50, 56, 78; of data, 73, *see* Data; of historiometric method, 25 f.; of IQ estimates, 66 ff., 79; of IQ judges, 69 f.

Religious leaders, Table 3 (35), 60, 187 n., 207, 211 f.; IQ estimates, 83 f.; personality trends and traits of, 209

—Leaders and reformers, 241, 248, 265 f., 269, 301, 310, 373 f., 382, 383, 384, 391, 394 f., 400, 428, 635 f.

Religious leaders—*Continued*
—Missionary, 721
—Prelates, *see* Religious prelates
—Theologians, 400, 431, 446, 491, 504, 505, 508, 599 ff., 699 f., 736 f.
See Metaphysician
Religious or spiritual development, 136, 241, 256, 265, 273, 279, 374, 377, 416, 432, 447, 466, 467, 484, 485, 492, 493, 499, 504, 505, 508, 510, 519 f., 524, 527, 538, 546, 549, 582, 597, 600, 615, 631 f., 646, 661, 722, 728, 736; at age of 4, 127, 152, 269 f., 423; at age of 9, 226
Religious prelates, 237, 270 f., 275, 279, 382, 484, 504, 505, 506 ff., 508 f., 519, 631 f., 662 f.
Revesz, G., 130
Revolutionary statesmen, 35 f., 60 f., 83, 187 n., 188, 192 f., 195, 197, 199, 207, 211 f.
Revolutionists, *see* Statesmen
Ribot, Th., 13
Rose, *Biographical Dictionary*, 19; *see* Sources
Royal Institution, appointment to, 576
Royalty, and greatness, 19, 23; and hereditary aristocrats omitted, 761 n.; privileges granted to, 719

Scholar, classical, 297, 301; *see* Writers (scholars)
Science, achievement in, 475, 501, 692; *see* Scientists; interest in, 322, 323, 328, 359, 373, 399, 405, 418, 426, 434, 450, 454, 458, 462 f., 473 f., 477, 496 f., 503, 534, 608, 636, 691, 722
Scientists, 35, 60, 211 f.; characteristic traits of, 205 f.; IQ estimates, 83
—Anatomists, 245 f., 287 f., 322, 373, 392, 454, 455, 608 ff., 675 f.
—Astronomers, 230, 403 f., 475, 499, 502 f., 525 f., 526 f., 530 f., 541 f., 579 f.
—Botanists, 327, 455, 462 f., 675 f.
—Chemists, 232 f., 276, 292, 320, 323, 455, 456, 574 f., 711 f.
—Explorers, 403, 721
—Geologists, 722 f.
—Mathematicians, 332, 358, 364, 392, 415, 484, 541 f., 572, 573, 577 f., 607 f., 635, 690 f., 702 ff.
—Mechanicians, 438 f., 495 f.
—Naturalists, 315, 322, 327, 398, 449, 472 f., 608 f.
—Physicists, 232, 320, 484, 495 f., 499, 524, 526 f., 569 f., 632, 634, 690 f., 722 f., 729 f.
—Political, 434, 477, 492 f., 699 f.; *see* Economists
Scudder, Mary T., 13
Seashore, C. E., 103
Self-confidence, 243, 302, 433, 758
Self-control, 720
Self-education, 143, 235, 244, 245, 342, 400, 514, 537, 578, 627, 666, 703, 713, 730
Self-expression, 367
Self-reliance, 243
Self-trait ratings, 176, 178 f., 200, 201, 202, 203, 204, 205 f., 207, 208, 209, 210, 212
Self (positive and negative), 183 ff.
Serious-minded, 649, 660, 733
Shyness, 465, 490, 492, 684, 728
Socialism, founder of, 372 f.
Social status of parents, 36 f.; *see* Parental standing
Social traits, 168, 176, 178, 426, 616, 694; lack of, 684, 729, 733
Soldiers, 35, 60, 187 n., 192–199, 211 f.; characteristics of, 203, 204 f.
—Fighting, 225, 235, 238, 240, 243, 249, 251, 257, 261, 262, 267,

268, 269, 274, 282, 285, 296, 312, 319, 331, 339, 345 f., 361, 368 f., 378, 432, 511, 713, 720

—Naval officers, 311, 333

—Statesmen, 203, 237, 239, 240, 251 f., 261, 264, 267, 268, 278, 296, 298, 302, 304, 306 f., 312 f., 313, 337 f., 344, 345, 362, 377 f., 378 f., 409 f., 410 f., 421, 423 f., 482, 489 f., 492 f., 522 f., 524 ff., 551 ff., 563 ff., 565 f., 567, 569, 616 ff., 632 f., 640 ff., 654 ff.

See Statesmen (Revolutionists)

Sophocles, 27

Sources, original, 19, 23, 24, 38 f., 40; list of, 223

Spearman-Brown formula, 76

"Speculative Society," 634

Spencer, Herbert, 12

Sports, aversion to rough, 366, 513, 588, 647, 660, 672, 683, 731; interest in, 242, 246, 247, 313, 325, 384, 396, 399, 410, 449, 457, 470, 478, 480, 496, 507, 509, 511 f., 536, 538, 558 f., 560, 575, 590, 606, 616

Stanford-Binet tests, 8, 47, 74, 77 f., 639; grade ratings in terms of, 76

Stanford, Thomas Welton, Fund, ii, xi, xii

Statesmen, 35, 60, 187 n., 192–199; characteristics of, 210 f.; IQ estimates, 83 f.

—And politicians, 203, 229, 233, 237, 240, 243, 247, 251 f., 261, 264, 267, 268, 273, 274, 275, 278, 280, 281, 287, 293, 296, 298, 302, 304, 305, 306, 312, 316, 319, 325, 341, 344, 345, 375, 377, 378, 388 f., 395, 407, 409, 410, 423, 425, 428, 458, 482, 489, 492 f., 515, 522, 524, 536, 547 f., 551 f., 563, 567, 569, 616, 632 f., 646 f., 649 f., 651 f., 662 f., 687 f., 716 f., 718 f., 724 f., 731 f.; *see* Soldiers (Statesmen), Political achievement, Political interests

—Revolutionary, 207 f.

—Revolutionists, 421, 425, 432 f., 511, 654

—Soldier, 565 f., 640 ff., 654 ff.

Stedman, Lulu M., xii, 63

Stern, William, 16, 21, 22, 25

Subgroups, characterization of, 180 ff.; comparison of, 211 ff.

Subjects, selection of, 31 ff.

Surveying at 14, 339; at 15, 345 f.

Talking (learning to talk), at 6 months, 136, 646; sentences at 11 months, 466; at 8 months, 634; learning letters before, 150; sentences before 2 years, 672

Taussig scale, 36 n., 47 f.

Teaching, early, 272, 303, 320, 324, 328, 372, 384, 451, 572, 582

Terman, Lewis M., xi, xii, 5, 21, 40, 41, 42, 48, 63, 74

Toulouse, E., 16

Trait deviations of groups, 181 ff.

Trait profile, of geniuses, 177 ff.; of individuals and groups, 194 ff.

Traits of character, groups, 172; individual, 185 f.; rated, 169 ff.; schedule of, 172 ff.; *see* Trait profile, Ratings

Translations, 265

—From French, at 16, 805

—From Greek, at 12, 795

—From Latin, at 11, 804; at 12, 815; at 13, 786, 815; at 14, 775; at 15, 786; at 16, 766 f.

Travel, influence of, 165, 254, 314, 316, 317, 336, 360, 372, 378, 381, 429, 457, 474 f., 515, 516, 529 f., 597, 649, 716

Type, classical and romantic, 28; hyperkinetic and hypokinetic, 28

Utilitarian Society, 158

Utopian Society, 674

Versatility, 133, 155, 230, 286, 303, 312, 314, 317, 339, 390, 418 ff., 438, 439, 474, 494, 496, 545, 569, 575, 590, 611, 659, 698, 734, 735, 769; *see* Achievement in several lines

Walking (learning) at 9 months, 576; at 10 months, 599; as recreation, 678

Ward, Lester F., 12, 14

Warfare, ability in, 103, 274, 286, 296, 425; genius for, 655, 659

Wealth, acquired, 275, 303, 315, 372; of family, 585, 645

Webb, Edward, 169 ff., 179

Wild life, 238, 257, 274, 320, 372, 384, 441, 451, 543, 564, 671; *see* Dissipation

Wilful, 421, 586, 606, 738

Will, strength of, 421, 425, 522

Wit, 264, 295, 452; distinguished for, 563 ff., 576, 645, 647, 669; and repartee, 670

Witchcraft, accused of, 475

Woods, Frederick Adams, 6, 13, 21, 22, 23, 25, 26, 27, 29, 45

Writers (Critics, Essayists, Historians Scholars), 35, 59 f., 187 n., 211 f., 226, 229, 262, 270, 287, 302, 306 f., 316, 336 f., 339 f., 341, 345, 356, 359, 366, 368 f., 394 f., 400, 404 f., 406 f., 407 f., 423, 431 f., 437, 452 f., 464, 478, 504, 508, 517 f., 519, 528, 549, 554 ff., 558 f., 590 f., 596 f., 612 f., 613 f., 618, 623 f., 626, 631, 651 f., 656 f., 660, 672, 687, 722 f.; characteristics of, 202 f.; IQ estimates, 83 f.

Writers (Dramatists, Novelists, Poets), 35, 38, 59 f., 187 n., 211 f., 224, 227, 228, 258, 263, 280, 284, 291, 307 f., 317, 347, 348 f., 353, 354 f., 356, 359, 363 f., 368 f., 375, 379, 390, 396, 400 f., 401 f., 413, 416, 418, 424, 430, 436, 437, 440, 451, 458, 461 f., 467, 480, 487, 494 f., 513, 517, 537 f., 542, 543 f., 545, 549, 560, 582 f., 585, 602, 605, 615 f., 618, 621, 623 f., 638, 643, 645 ff., 647 f., 663, 665, 669, 672 f., 675 f., 693 f., 715, 719 f., 726, 728, 732 f., 734, 738 f.; characteristics of, 201; IQ estimates, 83 f.

Writings of young geniuses, 127, 128, 136, 137, 155; excerpts from, 761, 815

—Ballads, 797

—Burlesques, 780; 815

—Comedy, 348, 790

—Drama, 644, 667, 670, 740, 768, 781, 799

—Elegy, Latin, 799

—Essays, 770, 780, 796

—History, 604, 709, 735, 795

—Hymn, Greek, 802

—Latin and Greek, 637, 638, 679, 685, 700, 761, 763, 768, 774, 775, 776, 780, 783, 798, 802, 803

—Letters, 770, 774, 792

—Lexicons, Hebrew and Greek, 784

—Poetry, 260, 350, 540, 543, 562, 564, 576, 622, 648, 689, 704, 716, 763, 767, 768, 769, 771, 773, 780, 793, 801, 811, 814, 815

—Political, 651

—Psalms, 796

—Reviews, 799

—Scientific papers, 147, 634, 773

—Stories, 548, 580, 584, 598, 763 f., 812

See Production, Publications